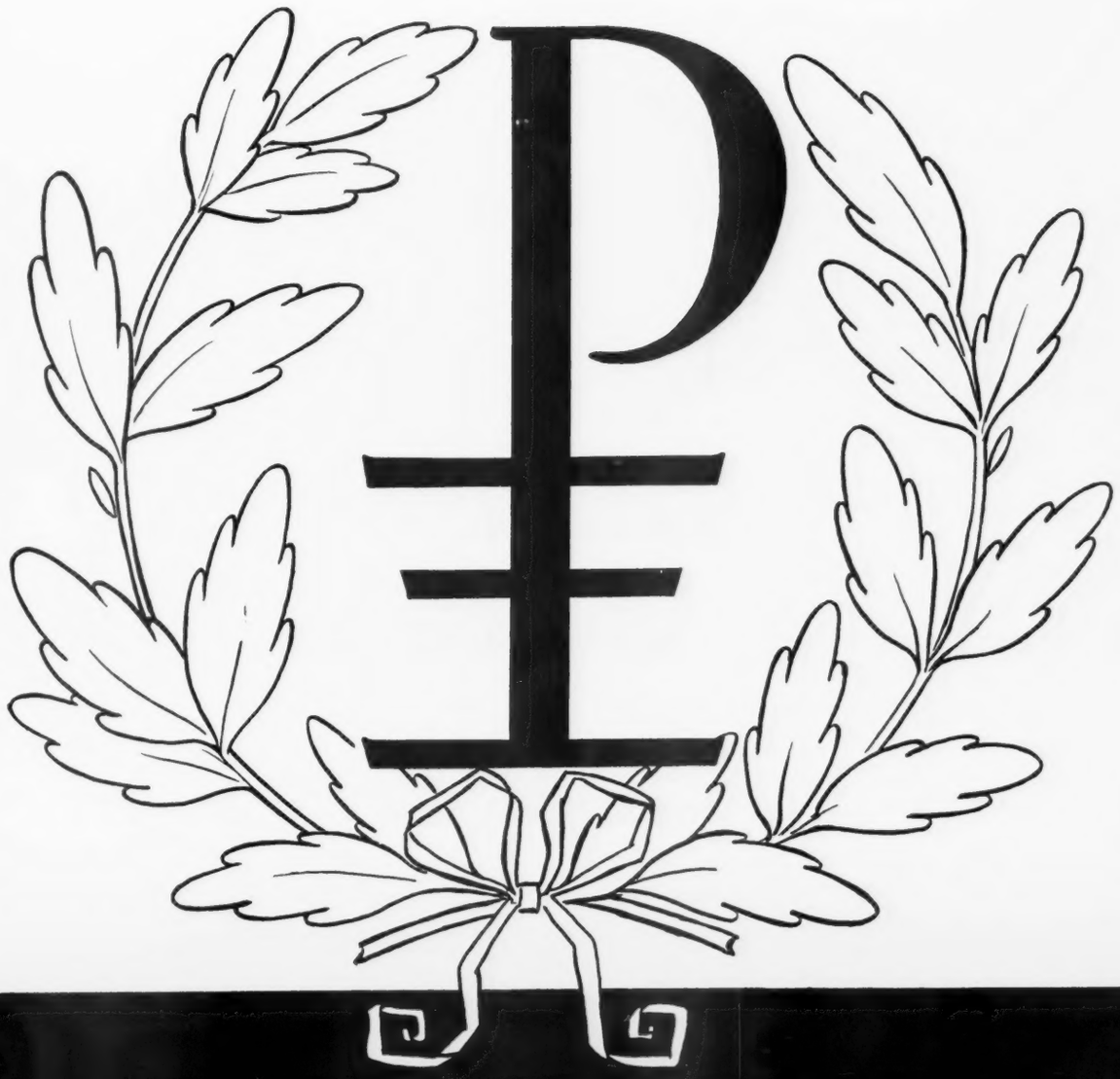


PRINTING EQUIPMENT ENGINEER

ANTI-FRICTION

Means less power consumption . . . less mechanical wear . . . . longer life . . . . and, most important, a notable increase in Productive Speed

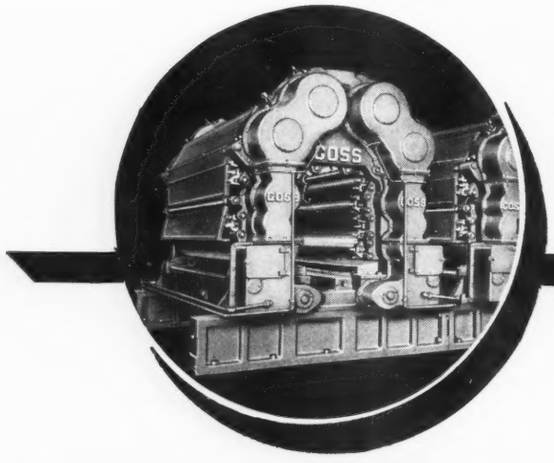
● Ball and roller Anti-Friction bearings are used throughout the Goss High Speed Anti-Friction Press. One obvious advantage is a reduction in the amount of power needed to operate the press. Less friction produces less wear — with the result that adjustments are needed less frequently and the entire press is endowed with a longer service life.

● Equipment with Anti-Friction bearings throughout has one advantage which far outweighs all others — namely, *the greater smoothness in operation which makes possible a material increase in the productive speed of the press.*

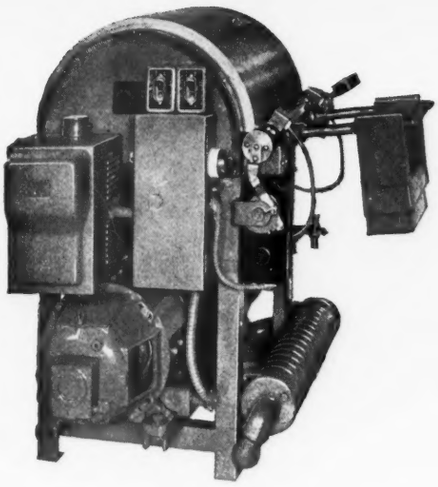
● Claims for speed, as we have repeatedly pointed out, mean very little unless they are supported by unchallenged records of actual high average net production over an extended period. That is the only kind of speed that counts!

THE GOSS PRINTING PRESS COMPANY, CHICAGO, ILLINOIS

NEW YORK OFFICE: 220 EAST FORTY-SECOND STREET • SAN FRANCISCO OFFICE: 707 CALL BUILDING • THE GOSS PRINTING PRESS COMPANY OF ENGLAND, LTD., LONDON

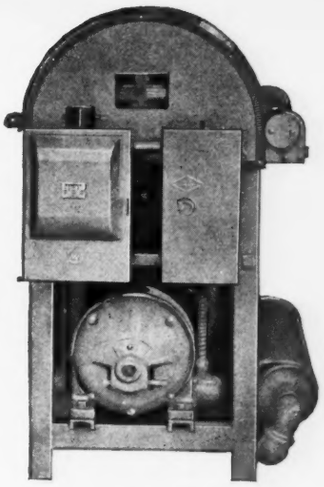


GOSS



STAHI AUTOFORMER

You're Heading Into Trouble When Your Print Starts to Slump



STAHI JUNIOR FORMER

Advertisers of today, are not inclined to favor poorly-printed newspapers—they want quality printing, for better reader response. The very foundation of quality printing, starts with Uniform Casting Levels in dry-mats, which only STAHI can guarantee. With a sense of vital accomplishment, STAHI gives to you a new means of "Forming" dry-mats, with UNIFORM CASTING LEVELS; and Bone Dry Scorching with amazing rapidity. Either Automatic or Non-Automatic Operation. Our new circulars have an attractive story on STAHI details, any of our agencies have available copies or write us direct.

STA-HI

STAHI NEWSPAPER SUPPLY COMPANY, INC.

1020 Crocker Street
Los Angeles, California

417 Oregonian Building
Portland, Oregon

AGENCIES

Goss Printing Press Company
Chicago, New York, San Francisco

Toronto Type Foundry Company
Toronto, Montreal, Winnipeg, Canada

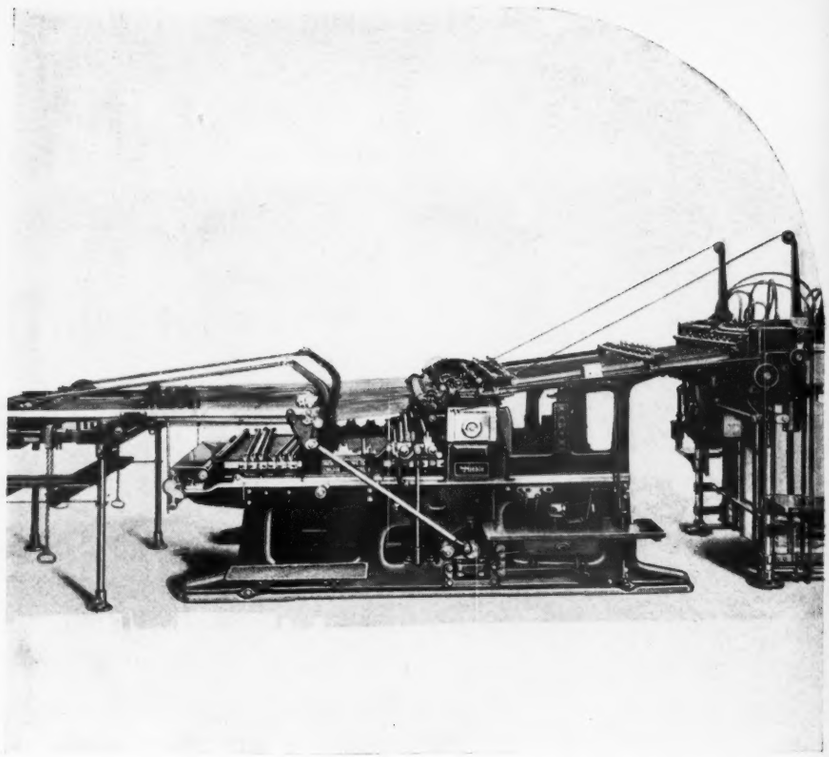
A. M. Carneiro & Company—South America
152 West Forty-second St., New York, N. Y.

Wood Flong Corporation
Hoosick Falls, N. Y.

Certified Dry Mat Corporation
New York City, N. Y.

Goss Printing Press Company—London, England
European Manufacturers

SKF EQUIPPED
BUILT BY
DEXTER
FOLDER
COMPANY



SMOOTH FEEDER OUTPUT IS RESULT OF

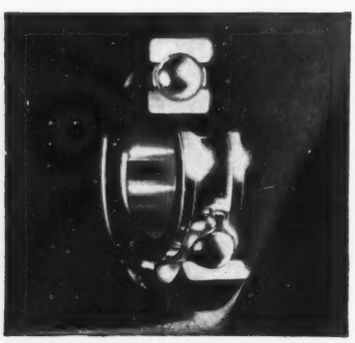
SKF PERFORMANCE

MEN WHO PRINT know bearings, and they know that paper, whether it is fine, coarse or just in between, *depends* upon bearings when it is "run" through an SKF-equipped Dexter feeder, built for a Miehle #4 press, like the one above. Bearings are a part of the job, from the press to the finished product . . . and SKF bearings are invariably used. For in bearings in printing equipment, performance is the only thing that counts.

SKF Bearings are built for performance. Performance is the only excuse for their existence. Performance is the reason for their selection wherever the job is toughest or the going speediest. SKF's are never built *down* to a low quality standard. They are built *up* to the job . . . and they stay there . . . *always.* Remember, that you can depend on the *plus performance* in an SKF Bearing every time.

3205

● *You may buy a bearing as a bargain but try and get a bargain out of using it, for nothing is apt to cost so much as a bearing that cost so little*



SKF INDUSTRIES, INC., FRONT ST. and ERIE AVE., PHILADELPHIA, PA.

SKF
Ball and Roller Bearings

Ludlows in the Composing Room of the Chicago Tribune

Photograph by Torkel Korling

Display composition demands **Efficient Flexibility** in typesetting equipment

The demands of display composition, on either ads or heads, are exceedingly varied; one line of this type size, three lines of that, then a change to another face, then a single correction line—and so it goes throughout the day.

The Ludlow achieves complete flexibility efficiently. Of course it is not merely a question of what can be done with a machine, but of what can be done efficiently and economically. Efficiency and economy in handling the run-of-hook display over the months and the years is what counts. This is the prime consideration controlling the engineering and manufacture of the Ludlow.

The Ludlow values—and will continue to value—simplicity in operation and in mechanism as the cardinal virtue of equipment designed for the use of the hand compositor. The compositor should keep his mind on the copy he is setting and be free from concern regarding adjustments or operation of the machine he is using as a tool.

The Ludlow of 1934 embodies the results of years of practical successful operation in large and small newspaper composing rooms. In the modern newspaper plant, the Ludlow is meeting display composition requirements efficiently and economically.

Within recent months, important Ludlow equipment purchases have been made by the New York Daily News (4 Ludlows), Indianapolis News (2 Ludlows), Providence Bulletin-Journal (2 Ludlows), Tampa Tribune (2 Ludlows), Toronto Telegram, New York Evening Post, Springfield Union and Republican, Philadelphia Bulletin, and many other papers.

LUDLOW TYPOGRAPH COMPANY, 2032 Clybourn Ave., Chicago

Set in the Ludlow Tempo family

NEW YORK Herald Tribune

WINS

HIGHEST AWARD AGAIN WITH 100%

GOODYEAR

EQUIPMENT

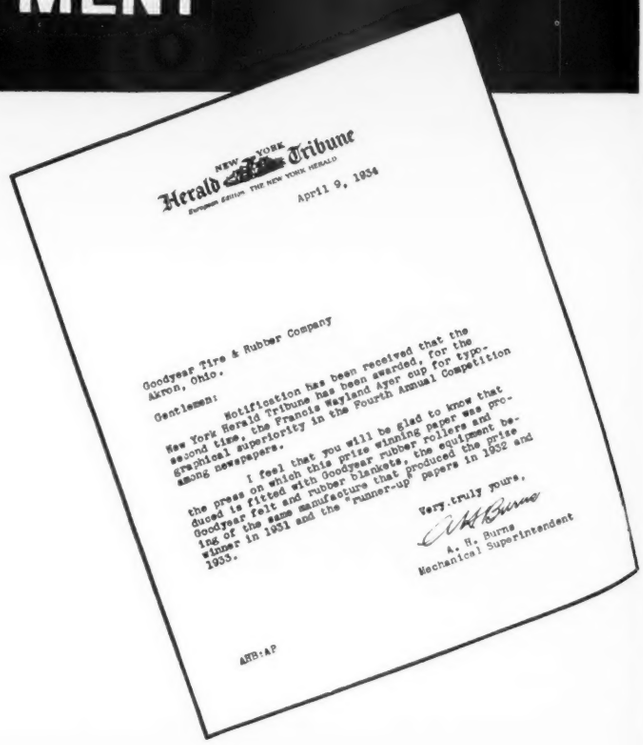
COMPETING against 1485 other newspapers, the New York Herald Tribune has again been awarded the Francis Wayland Ayer Cup for the "Best Printed Newspaper" in 1934.

Victor previously in 1931, runner-up in 1932 and 1933, the Herald Tribune is the only newspaper to be "in the money" every year since this award was instituted!

In congratulating this great newspaper on so fine an achievement, Goodyear takes pride in the fact that during all four years its presses have been equipped 100% with

GOODYEAR FELT BLANKETS
GOODYEAR RUBBER UNDERPACKING
GOODYEAR INK ROLLERS

If you would like complete information about these products that make for sharp, clean, clear, economical printing, write Goodyear, Akron, Ohio, or Los Angeles, California. Branches in all principal cities.



NEW YORK Herald Tribune
European Edition THE NEW YORK HERALD

April 9, 1934

Goodyear Tire & Rubber Company
Akron, Ohio.

Gentlemen:

Notification has been received that the New York Herald Tribune has been awarded, for the second time, the Francis Wayland Ayer cup for typographical superiority in the Fourth Annual Competition among newspapers.

I feel that you will be glad to know that the press on which this prize winning paper was produced is fitted with Goodyear rubber rollers and Goodyear felt and rubber blankets, the equipment being of the same manufacture that produced the prize winner in 1931 and the "runner-up" papers in 1932 and 1933.

Very truly yours,

A. H. Burns
Mechanical Superintendent

AHB:AP

THE GREATEST NAME IN RUBBER

GOODYEAR

NOW YOUR PRESSES CAN BE EQUIPPED COMPLETELY WITH GOODYEAR PRODUCTS

Associate Member

National Printing Equipment Association, Inc.

Printing Equipment Engineer

Trade Mark Registered U. S. Patent Office

Volume 48 *Number 2*

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Share Your Knowledge With Others

The key men in your organization will appreciate looking over the pages of this magazine. Perhaps one of them will be able to put some particular technical idea to good use.

Place a check mark in each square for attention of the department head or assistant whom you wish to look over special articles in this issue.

☐ *Production Manager*

☐ *Foreman Lithographing Department*

☐ *Mechanical Superintendent*

☐ *Superintendent Stereotype Foundry*

☐ *Composing Room Superintendent*

☐ *Superintendent Electrotype Department*

☐ *Chief Composing Room Machinist*

☐ *Superintendent Press Room*

☐ *Monotype Department*

☐ *Bindery Foreman*

☐ *Photo Engraving Department*

☐ *Manager*

☐ *Purchasing Agent*

Why Keep Fumbling In The Dark?

Nearly everyone has experienced a predicament similar to that of the blindfolded person who is trying to unlock a door. Few who have fumbled for the keyhole at night can fail to appreciate his dilemma.

Neither would they long ignore a practical means of rendering such a task less difficult. *Yet, many publishers keep their linecasting machine operators working in the dark . . .* because reference characters on ordinary brass matrices are quite difficult to read.

Operators who attempt to verify assemblies of ordinary matrices usually are as handicapped as blindfolded persons who try to see keyholes.

But it no longer is necessary to so handicap operators—nor to waste 12% of their time in error correcting.

By having your present matrices treated with our Black and White process—*making reference characters plainly visible in the assembler*—a significant proportion of error expense can be eliminated.

No guess work about this. We *guarantee* a 25% reduction in all errors in original machine composition and *prove this saving* before you pay us a penny.

Matrix Contrast Corporation

Empire State Building New York City

(Sole licensees of the Percy L. Hill Black and White Patent No. 1466437, held valid by U. S. District Court, Eastern District of New York. Infringers will be vigorously prosecuted.)

PRINTING
EQUIPMENT
ENGINEER

for May 1934

A. N. P. A. Mechanical Meet

By STAFF WRITER

THE A. N. P. A. Mechanical Department Conference which is to be held at the Hotel Statler, St. Louis, June 4, 5 and 6, promises to be one of the most interesting sessions ever held. This year a considerable portion of the program has been given over to the problems associated with publication and the production problems of the smaller daily newspapers.

Mechanical executives this year will be provided with a "technical feast" since representatives will be present from some of the major mechanical equipment manufacturers who will describe the latest developments in composing machinery and printing presses. The mechanical executive who tries to keep abreast of the times may feel that his desire for technical information will be satisfied simply by interrogating the various manufacturers' representatives during the conference sessions.

COMMERCIAL EXHIBITS

The policy of allowing commercial exhibits in the hotel, which was inaugurated last year, is in force this year. Exhibitors must make their own arrangements for space with the hotel management. Walter Ogden, superintendent of pressroom, Cleveland *Press*, has been reappointed as the committee on commercial exhibits.

SIGHTSEEING

An illustrated folder on what to see in St. Louis will be forwarded upon request to the A. N. P. A. Mechanical Department, 370 Lexington Ave., New York, N. Y. The Department has a supply of maps showing the streets in the downtown section and the automobile routes leading into the main part of the city.

As usual, the local newspaper plants will be open for inspection. The St. Louis plants are well worth seeing and the latest of the three new plants, that of the *Star-Times*, is expected to be in operation at convention time.

TIME

St. Louis uses Central Standard Time.

ENTERTAINMENT

The program has been arranged so as to permit those who care to do so to attend the Open-Air Municipal Opera on Monday evening. The opera management has reserved a block of seats at $1.50 per seat for conference attendants. Those wishing to attend the opera should send ticket orders direct to Frank D. McDonald, secretary of the St. Louis Newspaper Publishers' Association, 413 Louderman Bldg., St. Louis.

Golfers will have their chance since the conference will recess on Tuesday afternoon.

AMERICAN NEWSPAPER PUBLISHERS' ASSOCIATION

EIGHTH MECHANICAL CONFERENCE

HOTEL STATLER, ST. LOUIS, MO., JUNE 4, 5 AND 6, 1934

This card, when presented at the convention registration desk (17th floor), will be exchanged for a badge admitting to all sessions as an observer one representative of

---

The badge is issued to the company and is transferable from one member to another of the same organization.

No._____ *Manager, Mechanical Department.*

Replica of card available to newspaper equipment and supply manufacturers is to be presented at the A. N. P. A. Mechanical Department conference registration desk, during the conference to be held in St. Louis, June 4, 5 and 6. After exchanging this card for a badge, the representative of an equipment or supply manufacturer will be admitted to all sessions of the conference.

THE PROGRAM

While the program is not complete at the time *Printing* EQUIPMENT *Engineer* goes to press, Manager Wines has furnished enough information to give a general idea about the conference sessions.

The program as completed to date is as follows:

MONDAY MORNING, JUNE 4

Small Newspaper Composing Room

Chairman, Russell B. Miller, Composing Room Superintendent, Bloomington, Ill., *Pantagraph.*

Speaker, Louis G. Bulsch, Production Manager, *Tribune-Times,* Hornell, New York.

MONDAY AFTERNOON, JUNE 4

Small Newspaper Press and Stereotyping Departments

Chairman, Chas. Frederickson, Mechanical Superintendent, Mt. Vernon (N. Y.) *Argus.*

One representative each from manufacturers of presses suitable for use by smaller daily newspapers will be present to answer queries offered by conference attendants.

TUESDAY MORNING, JUNE 5

The Modern Newspaper Composing Room, Its Equipment and Operation.

Chairman, Leon A. Link, Superintendent, Composing Room, Des Moines *Register and Tribune.*

Speaker, Edwin H. Evers, Mechanical Superintendent, St. Louis *Globe-Democrat.*

Representative from Mergenthaler Linotype Company.

H. F. Freund, Chief Engineer, Intertype Corporation.

TUESDAY EVENING, JUNE 5

General Discussion on Stereotype Room, Pressroom and Photo-Engraving

Chairman, W. J. Phillips, Plant Superintendent, Oklahoma City (Okla.) *Oklahoman.*

T. P. Beacom, General Mechanical Councillor, Hearst Newspapers, will lead the discussion.

WEDNESDAY MORNING, JUNE 6

Advertising Agency Session

Chairman, Harry D. Rindsberg, Mechanical Superintendent, Cincinnati *Enquirer.*

Speaker to be selected.

L. C. Michaels, Advertising Department, Cleveland *Plain Dealer.*

WEDNESDAY AFTERNOON, JUNE 6

Newspaper Press Drives

Chairman, S. H. Kauffmann, Chairman, Mechanical Committee.

E. H. Laabs, Engineering Dept., Cutler-Hammer Co.

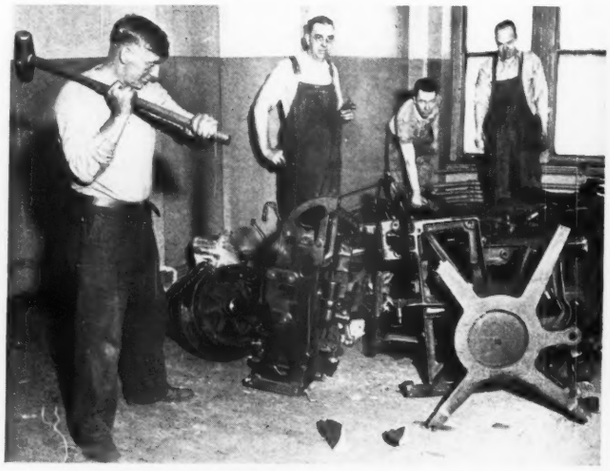
W. L. Wright, Industrial Engineering Dept., General Electric Co.

A. J. Cline, President, Cline Electric Mfg. Co.

Manufacturers' Exhibits

According to Walter Ogden, superintendent of the pressroom, Cleveland *Press,* and member of the A. N. P. A. mechanical committee, there is a lively interest being taken by manufacturers in the matter of displays at the St. Louis mechanical conference. Mr. Ogden states that the exhibits this year will no doubt surpass in number those of the Pittsburgh mechanical conference.

A Sermon with Few Words and a Couple of Pictures



Scrapping seven Linotypes in the plant of the Boston *Globe* —machines taken in by the Mergenthaler Linotype Company. At the extreme right is Herbert Merrill, chief machinist with the *Globe;* second from the left is William H. Palmer, formerly with the Linotype Company.

Scrapping a Linotype in the plant of the Port Arthur (Texas) *News.* This machine was taken in by the Mergenthaler Linotype Company.

Color Printing In Newspapers

Receiving Attention From A. N. P. A. Mechanical Department — Manager Wines Tells About Year's Activities

By Staff Writer

There are some unusually interesting features in the annual report of the A. N. P. A. mechanical department presented by Departmental Manager W. E. Wines to the parent body at its annual session held in New York, N. Y., the week of April 23.

Before discussing the report it is worthy of note to state that the Mechanical Department operated during the year 1933 within its budget which was 14% less than that approved for 1932. The same reduced budget has been requested for the current year.

COLOR PRINTING IN NEWSPAPERS

In enumerating activities of the mechanical department for the past year, Mr. Wines describes the work of the A. N. P. A. and the A. A. A. A. Joint Committee on Newspaper Printing with reference to numerous and complex problems involved in the printing of color advertising in newspapers.

The manager states:

"This is a real problem on which the Committee believes it can and will be of decided service to both newspapers and agencies. The need for joint action on this problem by the two Associations was brought sharply to our attention by the session on the use of color in newspapers at the Pittsburgh Conference. . . .

"The Committee has held two meetings during the year just closed and, after much study and discussion, has prepared a set of four questionnaires. One pair has been prepared for and mailed to agencies and the other pair to newspapers. Because of the involved nature of the subject and because of the various conditions obtaining both in newspaper and agency offices which must be considered and met, considerable time will be required to properly analyze the returns from these questionnaires and draw from them some workable conclusions.

"For some months the Department has been collecting samples of newspaper color advertising with the intention of using them in an exhibit at the next Conference. This is to take the place of the exhibit of black and white printing which has been a feature of the three preceding Conferences. In this connection it is interesting to observe that there has been a noticeable improvement in the printing of color advertising and also in newspaper printing generally. Concurrent with this has been an improvement in the quality of newsprint and also of news ink. We believe that the activities of the Mechanical Department—particularly the work of the Joint Committee, the reports on the study of ink and paper at the G. P. O., and the Mechanical Conferences—have contributed largely to this improvement in newspaper printing. It is nevertheless appreciated that there is still room for much additional progress in this direction, and that publishers, their mechanical departments, and the Mechanical Department of the A. N. P. A. should continue to strive for better newspaper printing."

NEWSPRINT WASTE

It is reported that the department continues its quarterly publication of newsprint waste statistics. Large sums of money have been saved some of the A. N. P. A. members through an organized program for the reduction of waste.

One outstanding example of waste reduction is that of the Louisville *Courier-Journal* and *Times*. T. A. Corcoran states that his office, as the result of a waste reduction drive covering 21 months, reduced the cost of waste and paper handling by approximately $17,000 annually. He acknowledges that the Mechanical Department was of great assistance in this connection.

TECHNICAL LITERATURE

Besides listing a number of bulletins published the past year, Mr. Wines states that the Department distributed a newspaper page prepared by E. C. Pratt, Camden, N. J.,

Continued on page 36

Highlights of A. N. P. A. Mechanical Department Activities

Mechanical Conference—The attendance at the Mechanical Conference at Pittsburgh last year was 189, the largest since the banner year of 1929.

This year's Conference will be held at Hotel Statler, St. Louis, June 4, 5 and 6. The entire opening day will be devoted to problems of the smaller newspapers.

New Policies—Subscriptions to the *Mechanical Bulletin* are now accepted from non-members (but not non-member newspapers) at $3.00 per year.

Representatives of the manufacturing and supply companies will be admitted to the sessions of the Mechanical Conference this year under certain restrictions.

Bulletins—Bulletins issued during the year are outstanding in both quantity and variety of subject matter and touch upon every phase of newspaper printing.

Joint Committee—The Joint Committee on Newspaper Printing is now engaged upon a study of the requirements for successfully printing newspaper advertising in color. This is important in view of the complexity of the subject and the growing use of color in newspaper advertising.

Newsprint Waste—Quarterly publication of newsprint waste reports from over 150 offices have been continued, and it is interesting to note that the percentage figures continue to decrease. The Louisville *Courier-Journal* and *Times* has reported a saving of approximately $17,000 annually with the cooperation of the Department.

Current Activities—A report on another biennial survey of type page sizes and paper roll widths is nearly ready for the printer. A survey on body type faces, which is expected to yield interesting results, is now in progress.

Lineup and Register Table

For Black and Color Forms to Eliminate Press Register — Devised by Mechanical Executive in Kansas City Plant

By C. A. BETTS*

THERE has been a great need in the printing industry for a device to properly impose a printing form, whereby one could be assured of perfect lineup in black forms or in the case of color forms a means of obtaining perfect register.

The use of rule, square, tee-square, straight edge or strings give fairly satisfactory results if properly handled. However, the hazards connected with the use of these various instruments have manifested themselves repeatedly in expensive adjustments of forms after going to press.

The placing of color forms in register in the average printing plant has always been a hit-and-miss process at its best.

Fig. 1.—The Betts Lineup and Register Table being used to impose and align the key form of a three-color label, running 33 on a sheet, 14 in. by 22 in. size. After the key form has been squared properly and aligned by means of thumb screws, aligning rules (not shown) and tee-square, at a position which will permit the succeeding color forms to be placed in exact register, the plates are inked with a hand brayer. The lid containing a sheet of transparent celluloid is closed and the impression is taken on the celluloid.

Various means of accomplishing this purpose have met only with mediocre results, the use of transparent materials placed over the form under imposition probably being the most satisfactory method.

*General Superintendent, The Burd & Fletcher Company, Kansas City, Mo.,

Editor's Note.—Mr. Betts was granted a patent on this device some time ago and has applied for patent on improvements made since that time.

With these conditions in mind, the writer attempted several years ago to arrive at some method whereby these handicaps could be overcome, and has only recently succeeded in refining a device to align forms of average size, which comprise the bulk of the ordinary plant production.

Explanations of the processes as shown in the accompanying photographs follow. The forms used in the various figures are plates for a three-color label (two of which are shown for demonstration purposes) running 33 on a sheet, 14 in. by 22 in. size.

ALIGNING THE KEY FORM

Fig. 1 shows the imposition and alignment of the key form by means of the tee-square and the rules which are imbedded in the side frames of the base. The latter rules do not show in the photograph, there being one on the left side and one across the front at the top of the frames. The tee-square is calibrated in 1/32 in. markings, starting at the left and reading to the right.

The first operation consists of placing the mounting base or the printing form, as the case may be, inside the frame, making certain that it is square by testing with the tee-square. After this is done, the form is fastened securely in the frame by means of the impression screws on the outside.

Fig. 2.—Shows imposition of the second color after a proof has been taken on the transparent celluloid sheet in the lid. After locating one plate of the color form in its proper position this form is imposed in the same manner as the key form shown in Fig. 1, by means of the transfer of the key form which has been made on the celluloid.

The tee-square is set at a suitable marking on the left frame and secured by means of the locking device in the head. The plates are aligned with the straight-edge of the tee-square, the spacing between the plates being determined by the calibrations on the straight-edge. The tee-square is then moved back to the proper marking on the left frame and locked. The next row of plates is then lined up as before.

When the key form is completed, it is inked with an ordinary brayer and a proof impressed on the transparent material in the lid by means of a mallet and a planer, or, if the object is such that this process is injurious to the material, it can be done by rubbing the fingers over the transparent material.

The form is then removed from the frame after loosening the screws at one side and one end, leaving the screws on the opposite side and end stationery so that the next form can be placed in exactly the same position in the frame. This insures placing the succeeding color in the same position on the press with little, if any, adjustments of the guides being necessary.

IMPOSITION OF COLOR FORMS

Fig. 2 shows the imposition of the next color and the impression of the key form on the transparent material in the

lid. After locating one plate in its proper position (in order to determine its position with the key form and to the straight-edge) this form is imposed in the same manner as the key form, the proof of which is in plain view and readily accessible if necessary for checking purposes. When this operation is completed the lid is lowered and the register of the plates can be seen plainly. When necessary to move any of the plates, markings showing the directions and distance of the moves are made on the face of the transparent material by use of a wax pencil. The lid is then raised and the plates can be moved accordingly.

Fig. 3 shows the color form in exact register with the key form.

This device is equally valuable in its usage on single color imposition, when a multiplicity of forms are being used. Perfect alignment and spacing are obtained easily.

These operations have been tested over a considerable period and the time of press register has been totally eliminated on jobs handled by this method.

HOW THE TABLE IS CONSTRUCTED

Mechanical details of this device are enumerated as follows:

The base is made of cast iron supported on the under side by heavy ribs.

The side frames are made of the same material and secured to the base by means of screws and dowels.

The lid frame is made of cold-rolled steel, pinned at the corners and attached to the main frame by means of the hinges shown, which are also screwed and doweled. The material fastened in the lid is celluloid of proper gauge to permit an impression to be taken. This material has been in use in the device shown for four weeks, during which time about 160 forms have been handled, and does not show any appreciable wear. The life of this material depends on the care exercised by the operator, and is replaced easily at very low cost in the event of damage.

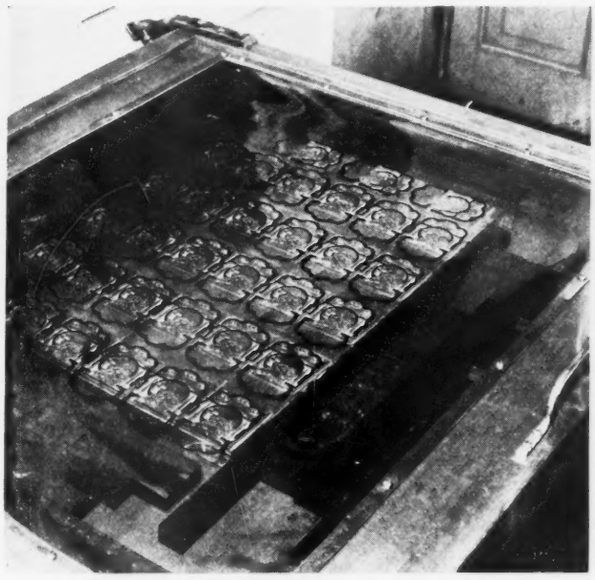


Fig. 3.—This shows a color form in exact register with the key form shown in Fig. 1. The proof of the key form taken on the transparent celluloid sheet with black ink is the means for shifting the plates in the color form to match the proof of the key form.

The tee-square is a rule, ⅛ in. thick and is fastened at the left to a piece of steel which bears upon the side frames. The locking device is an eccentric, securely fastening the tee-square to the side frame by a slight turn in either direction. The tee-square may be used from either the left or front member of the frame. As has been stated before, a rule is embedded in each of the left and front members of the frame, the left one being calibrated reading from the front to the back and the front one reading from left to right.

The impression screws are of 5/16 in. malleable iron. These screws are used in shifting forms inside the frame to obtain the closest register before making adjustments within the forms on jobs which are being registered for the purpose of electrotyping or for any other usage where the shifting of guides on printing presses is not a vital factor.

The stand is made of 1½ in. by ¼ in. angle iron, braced on all sides.

The particular size shown in the various figures is 28 in. by 32 in. outside measurement, and will accommodate a form up to and including 20½ in. by 28 in., or a chase 26 in. by 30 in. outside measurement, and is suitable for Miehle Horizontal press.

Manager Wines' Annual Report Refers to Considerable White Waste Savings Made by A. N. P. A. Members with Cooperation of Mechanical Department.

The Fifth Conference of the Technical Experts in the Printing Industry

The Fifth Technical Conference will be held in Philadelphia in October, the exact date to be set when the convention dates of two other national organizations are determined.

This conference will be under the joint auspices of the Printing Industries Division of The American Society of Mechanical Engineers and the Printing Research Institute. This will be the charter meeting of the Institute.

There will be a registration fee of $2, to go to the Institute. Each one at the meeting will become a subscriber member of the Institute for the year 1935, and will receive the proceedings of the conference and all of the bulletins and information issued by the Institute. Each one registering will be entitled to the reduced railroad fare provided for the meeting, which saving in most cases will exceed the registration fee. The charter members of the Institute must pay $5.

The Philadelphia Typothetae and the Craftsmen organizations and the Philadelphia Local Section of the A. S. M. E. and the Philadelphia Engineers' Club are cooperating in the local arrangements for the conference. Printing concerns of the city will doubtless open their plants for inspection, as has been the case at preceding conferences. A special part of the program will be held at the new Franklin Institute.

As in past conference all of the oragnization and associations connected with the graphic arts will participate. The program committee is headed by Edward Epstean as chairman, and suggestions of the topics and speakers for the program are invited. These may be addressed to Edward Epstean, care of The American Society of Mechanical Engineers, 29 West 39th Street, New York, N. Y.

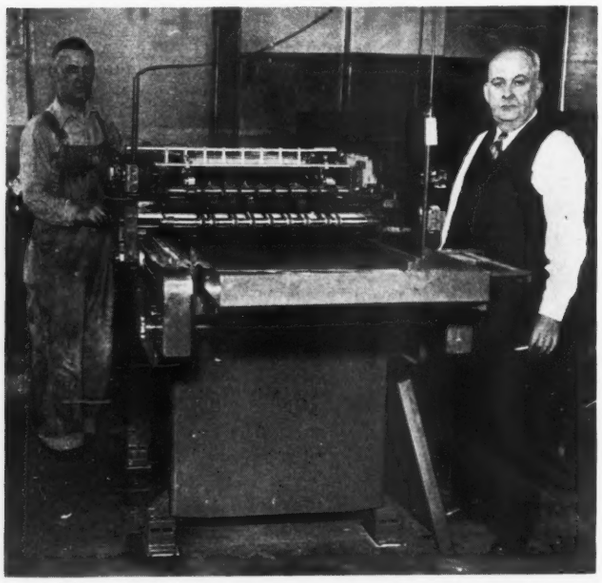
The Modern Proof Press

Especially Designed for Newspaper Composing Room Use, Runs Under Power—Is Fitted with Automatic Devices

By STAFF WRITER

THE demand by department, drug and furniture store advertisers for quantities of advertising proofs previous to insertion in daily newspapers has been increasing in the last few years. This makes existing hand-operated proofing equipment obsolete in many newspaper composing rooms because composing room executives cannot meet the demand except at an exhorbitant cost and with undue delay.

In some instances, department stores in the larger cities want 25, 30, 50 and even as high as 75 proofs of each advertisement which it is expected to print in one or more newspapers.



John B. Hogan (right), superintendent of the Cleveland Press *composing room and his right-hand man, Chief Machinist Al Krueger, standing beside the new Vandercook page-size power proof press which has just been installed in the* Press *composing room.*

The Press, *in response to the demands of advertisers, is one of the first plants in the country to install machinery for the purpose of printing multiple proofs of large advertisements at the rate of 700 copies per hour, although it is possible to print at the rate of 1000 impressions per hour should the occasion arise. A number of the advertisers order as high as 30 to 40 copies of each advertisement which is to appear in the* Press.

Mr. Krueger, like his boss, is pleased with the progress which has been made in developing mechanisms to satisfy the demands made upon the modern newspaper composing room.

These proofs may be used by a store in one or more of three ways:

(1) Each of its buyers needs a copy of the advertisement proof to verify the prices of the articles in the advertisement with which the buyer is concerned.

(2) In the case of chain stores, copies of the advertisements are sent to the different store managers for guidance during a general sale, or

(3) The proofs may be printed on good quality paper (other than newsprint) for distribution about the store or to hang in the show windows so that shoppers may read specially featured sales items.

This trend in the daily newspaper field has resulted in the manufacturer refining the design and increasing the flexibility of the proof press as well as stepping up its productive capacity. Presses are now available which are capable of turning out proofs of various sizes up to maximum newspaper page. These run under power and may be operated at a speed of 1000 impressions per hour.

The Cleveland *Press,* among the first of the metropolitan newspapers to recognize this new condition, has installed recently a Vandercook page-size automatic proof press. John B. Hogan, composing room superintendent, said that the demands of advertisers for multiple copies of proofs made it necessary that a modern proof press be installed to satisfy the advertisers. This speaks well for the manufacturer who anticipated the demand for proof presses for this purpose.

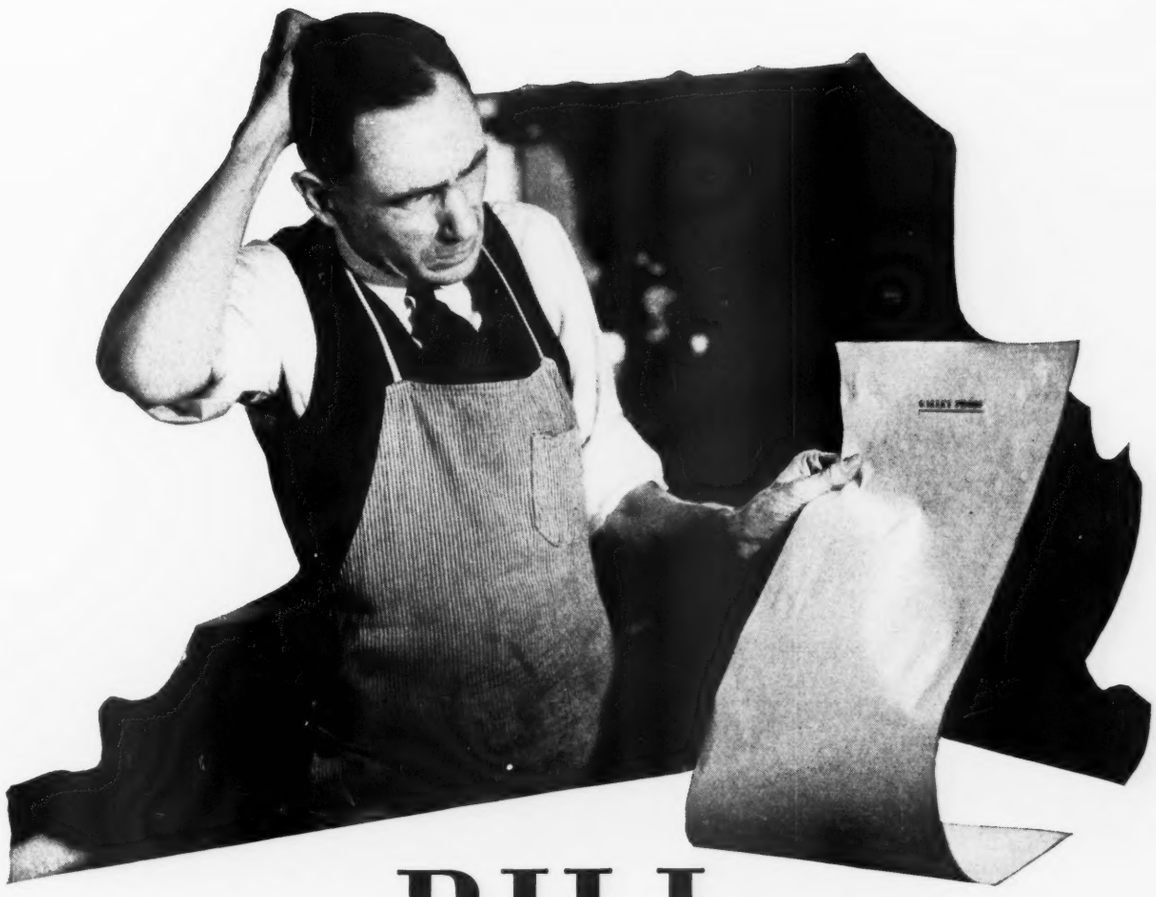
Mr. Hogan also stated that over a recent five-day period it was necessary to furnish 4800 full-page proofs for the different major department stores in Cleveland. This does not take into consideration the many proofs for other advertisers to whom it was required that proofs be furnished. Another example may be cited, he said, in the case of the May Company department store in Cleveland. This company prepared copy for twelve full pages in the Cleveland *Press* for its annual May Day sale. During the five-day period previous to the sale, each page was handled and revised five times, making a total handling of sixty pages and a gross total of 1200 proofs furnished for the one store.

The new automatic power proof press installed in the Cleveland *Press* composing room can be operated at a speed of 1000 proofs per hour but Mr. Hogan finds that an operating speed of 700 impressions is sufficient to take care of all the proofs needed by advertisers.

It is the usual practice in the *Press* composing room to cement all cuts such as zinc etchings and electros to bases before putting the form on the press. A special low chase ¾ in. high is used in order to prevent the form rollers from depositing ink on the chase and smutting the proofs. The form rollers are rubber and a special non-tack ink is used in the fountain. Distributor and vibrator rollers provide automatic and continuous ink deposit on the form regardless of its area within the capacity of the press.

The tape sheet delivery is mounted at the front and above the impression cylinder. The tapes are driven by a small motor mounted on the delivery frame.

TRADE LINOTYPE MARK



BILL

set a big string of white space last night

■ Bill didn't realize it at the time . . . he was so busy tapping out quads to fill those short and centered lines; but all that white space, if placed end to end, would reach a long way into the Boss' pocket.

Too bad Bill's boss didn't know about the Linotype Self-Quadder. If Bill had only had a Linotype equipped with it, he wouldn't have spent so much of the night tickling the quad-key. The Self-Quadder would have put in all that white space for him. Automatically! Clever device . . . it even decides whether a line that is almost full should be justified or quadded.

Perfectly amazing, how much time the Self-Quadder saves in shops where the work involves a lot of short or centered lines.

Linotype Bodoni

MERGENTHALER LINOTYPE COMPANY, BROOKLYN, NEW YORK

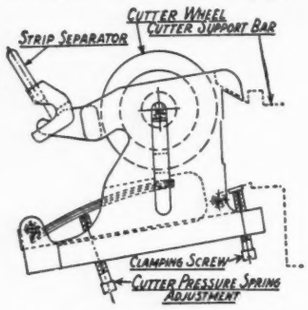
New Products For the Month

Include High Speed Roll Slitter, Split Magazine Rack, Fire Extinguisher and Direct Pressure Press

By STAFF WRITER

New Cameron High-Speed Slitter

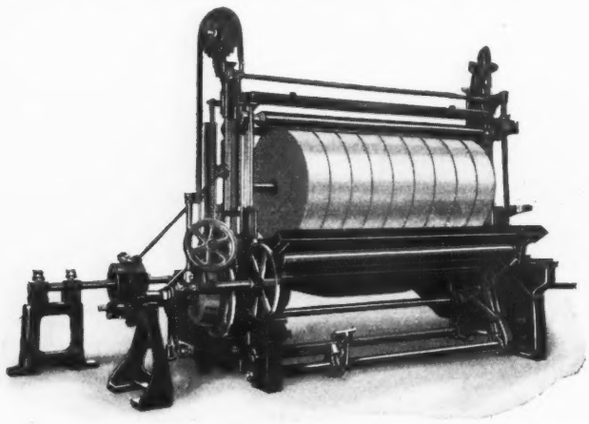
Cost reduction equipment was never so vitally needed as at present and in the design of a new high speed slitter, the Cameron Machine Company, 61 Poplar St., Brooklyn, New York, has done its part by providing the paper industry with a machine which will help to increase profits.



New Type Cutters Used with Camachine Slitter

The machine is designated as the new Camachine Type 10-5. It is roller bearing equipped, including roller bearing outboard drive. It operates at a speed of 1500 ft. per min., handling all kinds of plain, waxed, gummed and coated papers.

The machine employs new style sharp slitter units, which may be spaced to widths from ⅝ in. and upward which insures a clean cut with accuracy. Other new features are quick-riding roller lift and a system of counterweights, which automatically decrease pressure on the rewound roll as it grows in size and weight. The finished rolls may be of any diameter up to 30 in.

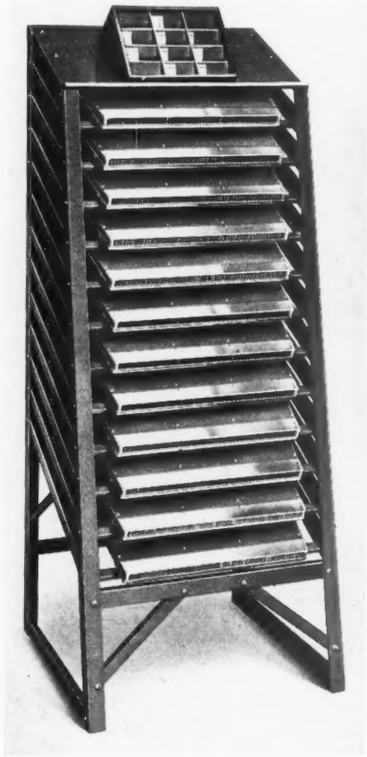


New Camachine Slitter, Type 10-5

In the last few months more than twenty of these machines have been put in operation, one firm alone ordering ten at one time. Reports state that a considerable increase of production is possible by the use of this equipment.

New Intertype Magazine Rack

The Intertype Corporation, 360 Furman St., Brooklyn, New York, has announced a new type magazine rack for storing standard split magazines. Due to the increased demand for a great variety of type faces to suit different kinds of composition, the question of physical effort involved in handling magazines is an important consideration. Where suitable equipment is not provided, changing and identifying magazines is time consuming and conducive to damage to the magazines and injury to the one doing the shifting.



New Intertype Magazine Rack

The new style Intertype magazine rack is designed to sustain all standard split magazines at the same flatwise inclined position in which they lie on the composing machine. With this arrangement the magazines can be held flatwise while being transported between the machine and the storage rack.

As illustrated, the new rack comprises an open steel frame stiffened by a sheet-iron plate up the back and over the top. The front of the rack inclines forwardly from top to bottom so that each magazine projects out in stepwise fashion beyond those above. This permits quick vision and easy reading of the identification labels and also facilities grasping the front end of any one of the magazines to be removed.

To facilitate inserting and removing the magazines, each compartment of the rack is provided with lugs to engage the upper cross bar on the under side of the magazine when they are partially inserted or withdrawn. Accordingly, when putting a magazine into the rack, the attendant slides it part way in until the upper cross bar falls behind the holding lugs. He can then let go at both sides and by pushing on the forward end, slide the magazine back until the central cross bar is caught behind the lugs.

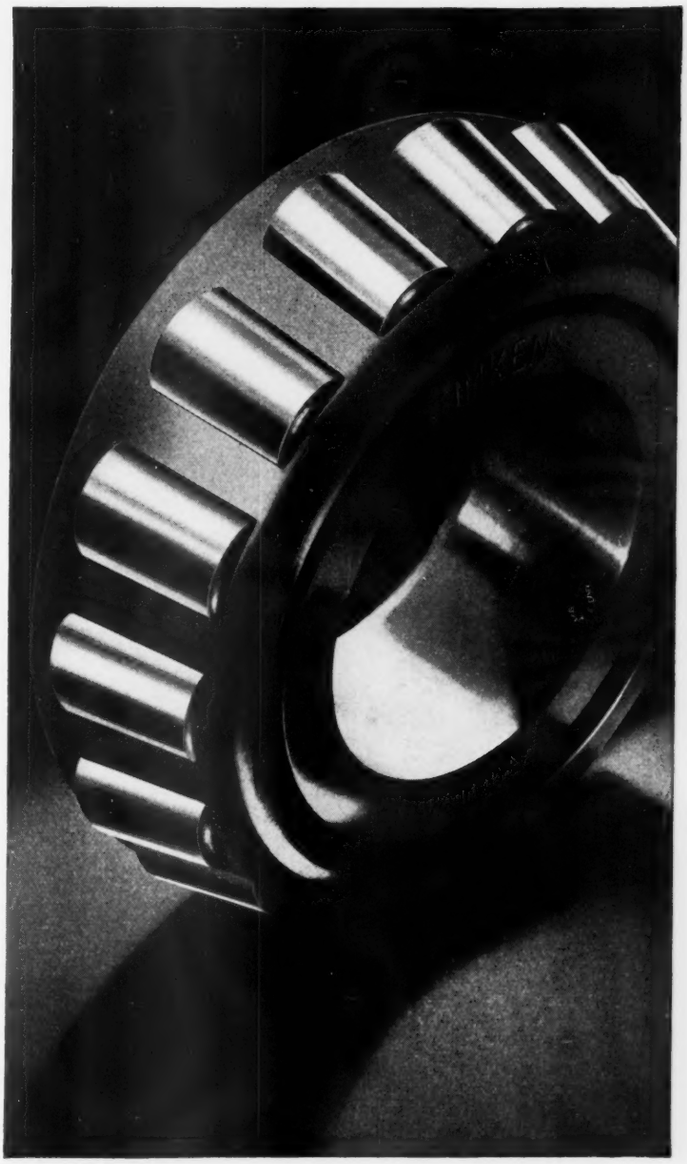
To remove a magazine, the front end is lifted slightly to disengage the central cross bar from the lugs. The magazine is then allowed to slide out part way until the upper cross bar is caught by the lugs. While thus held at rest the attendant can grasp the sides and slide out the magazine flatwise.

Each compartment is also provided with rails to guide the magazines by their logitudinal center bars as they are slid into and out of the rack.

The rack illustrated is designed to store twelve split magazines in little more than four square feet of floor space. Racks of this type may be placed in line against a wall or they can be arranged back to back at points convenient to the line of composing machines they are to serve.

Continued on page 34

FOR POWER SAVING AND PRECISION IN PRINTING EQUIPMENT of every type



THE printing industry is following hard upon the heels of its allied craft, the paper industry, in demanding the advantages of anti-frictionization in its mechanical equipment.

Just as Timken Tapered Roller Bearings have licked the paper industry's toughest jobs in Jordan engines, beaters, shredders, pulp machines, paper-making machines, Fourdriniers, dryers and super calenders, so they are bringing new conceptions of economy and accuracy to the printing industry in printing presses of all types; folding machines; binders; paper box machines and other equipment.

They radically reduce power consumption by doing away with friction; preserve precision by practically abolishing wear and holding moving parts in correct and constant alignment; lengthen machine life and cut maintenance costs to the bone by safely carrying radial, thrust and combined loads under all operating conditions. Printers want this great advancement. It will pay equipment manufacturers to see that they get it.

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

Tapered Roller TIMKEN BEARING EQUIPPED

TIMKEN *Tapered Roller* **BEARINGS**

Improvement in Press Blankets

In Conjunction with Better Plates and Plate-Clamping Means Will Improve Appearance of Future Newspaper

By Impression Pete

I suppose Gutenberg, too, worried about the press blanket or its equivalent. If we could have an ideal definition of a press blanket I believe it would go something like this: A firm, resilient material that will neither bolster nor indent, that possesses enough body and "guts" to print the solids perfectly and with complete coverage and is also of such a delicate and responsive construction that 120-line screen will be reproduced artistically without damage after millions of impressions; that it will also possess the virtue of impression return without impression rebound, which interpreted means, that the blanket is back and ready for another perfect impression each and every one-sixth of a second, but that it knows when to stop this comeback and does not extend it to the point of meeting the web by contacting it in an uneven or sketchy manner with the plate; that it will feed the paper perfectly through the printing cylinders and that it will not offset the first printing, and finally, that it will last forever.

Press blankets have been provocative of more thought, mystery and trouble than any other component part of the printing press. It is an extremely controversial subject. There are those who say that a press blanket must be made in the new of the moon from material grown upon a wild Australian he-sheep and it must be manufactured by a cock-eyed college professor who measures his warps and woofs with specially manufactured micrometers. And there is also the fellow who goes down to the store and buys a piece of linoleum and puts it on his press cylinders and prints. So-o-o, what's the answer?

Seriously speaking, though, the press blanket has many duties to perform on the modern printing press. It must reproduce within reason. It must print the underetched cut that is also below type-high but never its shallow bottoms. It must become the finished peripheral surface of the printing cylinder which is ground within one ten-thousandth of an inch finish, this accuracy being required in the lightning presses of today to insure proper correlation between the printing cylinders and the folding mechanism of the many printed webs traveling this short and perilous distance. It must be, indeed, an automatic makeready that functions so thoroughly as to reproduce a perfect impression from all parts of a printing plate surface which has a variation of several thousandths of an inch and at the same time it must keep an intimate relationship with the pitch line of the press.

Is it any wonder then we have so much theory about press blankets and that so many different methods of reaching perfection in printing have come about? It is a broad field and right now many are working in it. The functions of the press blanket can easily be reduced to two—those of quality printing and maximum production. The material or materials that can give the greatest number of advantages of both these requirements is what we must use if we are to progress in the art. Modern conditions make it mandatory that we have faster presses. These require a greater degree of perfection in the circumferential elements. Better plates, as the result of modernized stereotype practice, in turn enable the pressroom operator to use blankets which will not only reproduce better but will facilitate the operation of his press as well. Where the pressman was formerly confronted with the task of compelling blanketed cylinder surfaces to follow a very uneven type surface, he also had a slow speed with which to obtain results. Now with doubled press speeds and even greater speeds in the offing, we must have a better plate than has been so far produced. As important as the question of greater tensile strength of the plate is the need for new methods of locking the plate to the cylinder if high speeds are to be maintained with quality print and absence of disaster during operation.

To Our Readers:

All of our advertisers like to obtain direct response from advertisements printed in this magazine. Printing Equipment Engineer is the connecting link between the advertiser and the mechanical executive who uses his equipment. Won't you be good enough to say that you saw the advertisement in Printing Equipment Engineer when discussing equipment or supplies with the advertiser or his representative? We will appreciate it.

Theory means nothing unless it can be translated into practice and while we have said how a blanket ought to function, we must also say what kind of a blanket we think will do just that. It has been the writer's experience that the happy and ideal condition of a blanket that will print clearly and forcefully without bolstering or indenting is more closely reached through a combination of cork and rubber put on the press with the rubber blanket next to the cylinder and the cork on top, all covered with an oil-resisting tympan sheet. It is also advisable to have the rubber blanket thicker than the cork blanket because it has proved a

Continued on page 38

New York Herald Tribune Again Wins Ayer Award

New York Herald Tribune Wins Ayer Award

In the recent exhibition conducted by N. W. Ayer & Sons at Philadelphia, the New York Herald Tribune was named as the winner for typographical excellence among 1451 participants. The Herald Tribune relies upon the Wood New Process Coated Dry Mat for better printed pages.

Twice in the four years of competition, the HERALD TRIBUNE *has won the N. W. Ayer award and during this entire period has used Wood Coated Dry Mats.*

NEW YORK Herald Tribune LATE CITY EDITION
Shoals Bill Vetoed, President Upheld By Senate, 34-49
Steuer Accuses Broderick Of Laxity in Bank Case; Official Defends His Acts
Dry Law Study Criticizes N.Y. Enforcement
Daughter Kills Self for Slain Lothario in Garden Case
Calvin Coolidge Says:
Peace for India, Accord on Salt Won by Gandhi
Roosevelt-Smith Clash on Radicals Mere Forecast
Kenilon Retires After 19 Years as Fire Chief
Baird Enters Jersey Contest For Governor
Summary of Today's News
Senators in Crush at Crossing They Vote Against Removing

Front Page Mold of Prize-Winning Issue

We take this opportunity to congratulate the HERALD TRIBUNE upon the success in this competition.

WOOD DRY MATS ALWAYS UNIFORM

WOOD
FLONG CORPORATION
HOOSICK FALLS, N.Y.

WOOD DRY MATS ALWAYS UNIFORM

WOOD
FLONG CORPORATION
HOOSICK FALLS, N.Y.

The above advertisement appeared in the April 25, 1931, issue of *Editor & Publisher.*

Again, we take this opportunity to congratulate the HERALD TRIBUNE upon the success in this competition.

ST. LOUIS GLOBE-DEMOCRAT

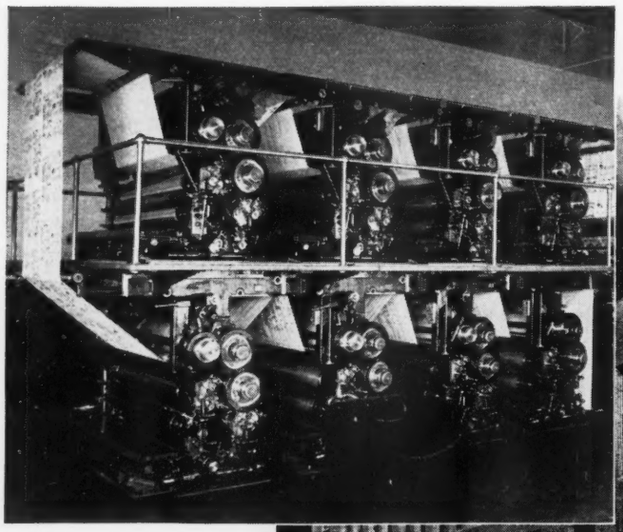
Proving complete satisfaction with Goodrich Rollers

AN ORIGINAL ORDER may be due to salesmanship, but re-orders come only from satisfaction.

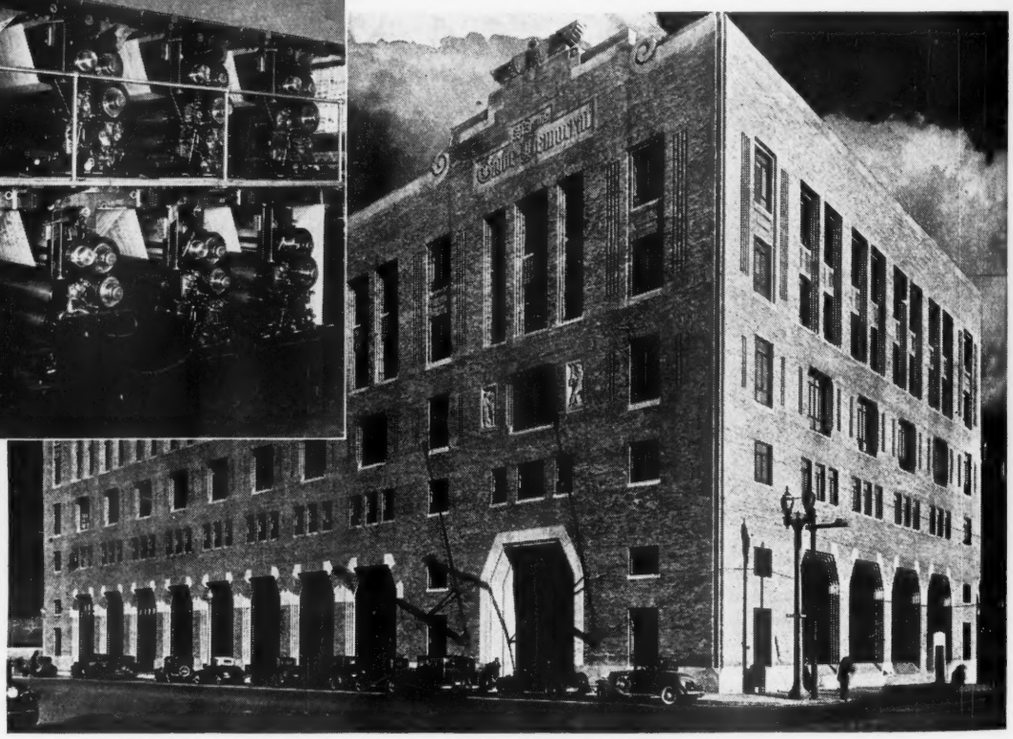
The St. Louis Globe-Democrat opened a modern plant two years ago, 100% equipped with Goodrich rubber Printers Rollers. And every roller purchased since has been Goodrich, including the latest lot for modern color cylinders.

Visit the Globe-Democrat when you attend the Mechanical Conference in June, and you'll see why. Goodrich Rollers last longer and serve better. They give a finer looking paper with sharper, blacker type and cuts. They reduce resetting and eliminate wash-ups. They are practically free from all temperature distortion. They can be reground and made good as new.

Scores of the country's leading newspapers rely on Goodrich Rollers for lower costs and a better looking sheet. To see how much Goodrich rollers could save you, write for detailed information and specific performance data.



Goss multi-color press at Globe-Democrat, completely equipped with Goodrich Rollers.



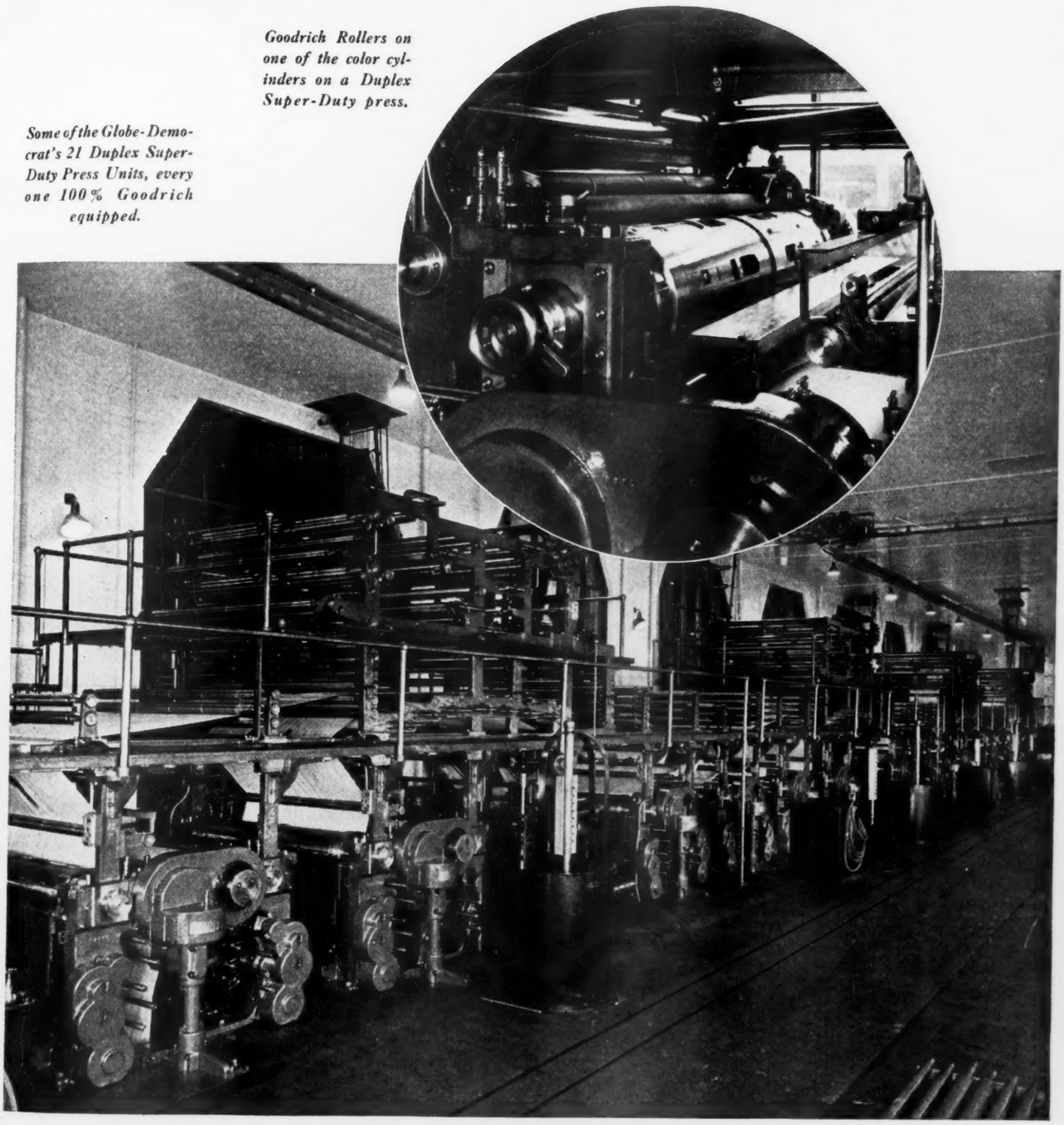
Plant of St. Louis Globe-Democrat, modern inside and out.

Goodrich

"SAYS IT WITH ORDERS"

Goodrich Rollers on one of the color cylinders on a Duplex Super-Duty press.

Some of the Globe-Democrat's 21 Duplex Super-Duty Press Units, every one 100% Goodrich equipped.



Write for full particulars to—

NILES & NELSON, INC., EXCLUSIVE DISTRIBUTORS
75 West Street, New York · 400 West Madison Street, Chicago, Ill.

Printers' Rollers

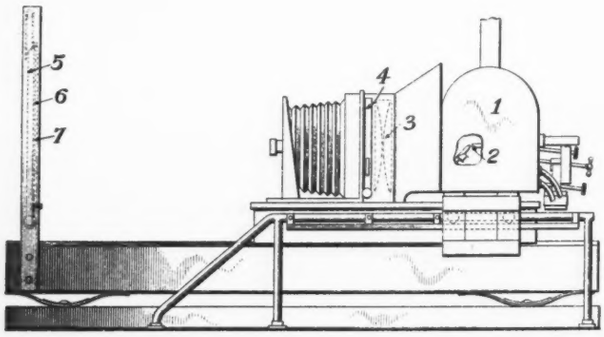
Projection in Plate Making

A Continuation of the Development of Projection From the Pifer Patent of 1920 Up To the Present Time

By FRANK O. SULLIVAN

FOR A period of ten years (1920 to 1930) through extreme patience, exhaustive research work, and the employment of skilled and able technicians, all difficulties were surmounted, and the Postergraph projection machine became an accomplished fact.

During that period application after application was filed in the Patent Office in Washington, only to be amended as better methods were developed. The final patent (1,843,872) was issued early in 1932. This patent marks the culmination of twelve years of intensive work on the part of skilled men, and the expenditure of upward of one-half million dollars.



This diagram is a side elevation of the only patented projection unit that has been in successful and continuous operation during the past few years. The parts are indicated as follows: 1 is the lamp house, 2 is the rotating carbon arc lamp operated on direct current at 125 to 185 amp., the condensers are indicated at 3; 4 is the negative holder; 5 is the vacuum board for holding the sensitized press plate; 6 is the sensitized press plate, and 7 is the interposing mezzograph or halftone screen. The vacuum board 5 is adjustable for vertical or horizontal movement. The lamp house, condensers, etc., are movable backward or forward on rails and can be locked at fixed mechanical points as set by the operator

The successful use of the Postergraph projector, during the past few years, fully convinces the patentees and the men behind this development, that all their dreams have come true.

That projection will be one of the coming methods of reproduction of displays, posters and large art work, in the lithographic industry is now conceded.

It might be well at this point to give an analysis of the economic side of this new method of projection, and what it will really mean to the lithographer doing display work in his plant. Roughly, the saving is from 30 to 50% over the three-way or "indirect method."

As an illustration, here is an actual job done in the plant now using this projecting machine. A customer brought in an artist's sketch to be reproduced in six colors, size 26 in. by 38 in., two up on the press plate. Six continuous tone, color separation panchromatic dry plates, size 8 in. by 10 in., were used by the photographer. Then followed the opaquing and staining of the negatives, the latter to retard the color values as desired by the artist. The projection of each color negative followed, projecting two up on each press plate through a mezzograph screen placed directly in front of the sensitized plate.

The time consumed in preparing this job for the press, took exactly 80¼ hours from the time the sketch was handed to the photographer, until the plates were ready to be placed on the press. In speed, economy and accuracy, there is no other method of which the writer is aware, that could compete with this method for large displays, posters, and the reproduction of art paintings in large sizes.

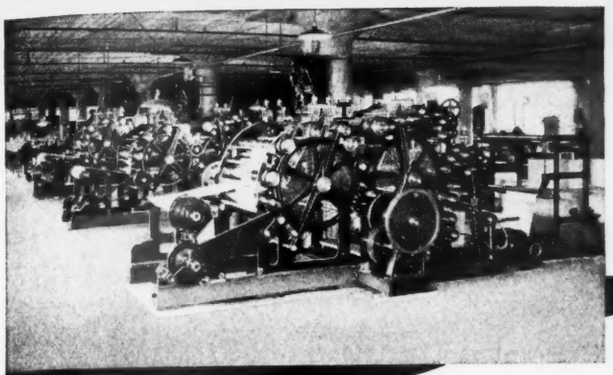
It must be kept in mind that from one set of negatives, it is possible to reproduce as many different sizes of any job the customer may desire once the negatives are made, opaqued and stained. For instance, a counter display, a window display, a car card, a one-sheet poster or a three-sheet poster may be made from the one set of negatives.

Then, too, with the exception of the projected halftone screen negatives, much can be accomplished on the press plate made through the medium of the mezzograph screen, for this can be taken from or added to at the will and judgment of the artist supervising the job.

At the present time but two images up are the most that is attempted by the present equipment, due to the intense actinic ray of light generated by the rotating carbon arc lamp. A new machine has been designed and will be built which will admit of the projection of at least four up on the press plate. The writer is given to understand, however, that it is not the intention of the backers of this machine to intrude on the present photomechanical methods so ably carried out by the present step-and-repeat machines on the market. This projection machine will be solely for the use of the lithographer who specializes in display of all kinds, posters, and the reproduction of art paintings.

It is this machine that will admit of the lithographer using a halftone screen, a mezzograph screen, or no screen at all (the latter applying to the writer's patent on projectional photogelatin) to turn out work every economically and satisfactorily.

The future holds much in store for the lithographer who has the vision to realize what such methods would accomplish for him in his own plant, in economy, speed and accuracy in the reproduction of his jobs.



You, Too, Can Build Customer Confidence Through Reliable Equipment

ATLANTIC REGISTER COMPANY
AUTOGRAPHIC REGISTERS AND CONTINUOUS FORM STATIONERY IN FOLDED PACKS
2 SCHOOL STREET
Watertown, Mass.

Feb. 16, 1934

General Electric Co.
140 Federal St.
Boston, Mass.

Att: Chas. Hewson

Dear Mr. Hewson:-

The two photographs herewith are interior views of our plant. They were taken to show some of our prospective customers that we are completely equipped to handle their jobs and thoroughly capable of meeting their requirements.

The pressroom is 100% G-E equipped. We are mighty proud of this equipment. It is 100% perfect and has never failed to respond accurately and instantaneously to the slightest touch of its push-button controls. Moreover, we are not only extraordinarily delighted with the equipment itself, but also with the service given us on the installation by the General Electric Company.

In the Stereotype Department you will note that we are using a G-E crucible for melting our stereotype metal. In fact, even though many competing bids were received, our entire plant is equipped throughout with General Electric apparatus. G-E service was, is, and will be, continually employed by us for its superiority.

Yours very truly,
ATLANTIC REGISTER COMPANY
A. G. Pierce
Arthur G. Pierce, Gen'l Mgr.

AGP:IMC

Service That Never Fails

NRA WE DO OUR PART

***The complete* G-E line enables you to entrust *one* manufacturer with the undivided responsibility for every electrical requirement of the modern pressroom.**

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GENERAL ELECTRIC

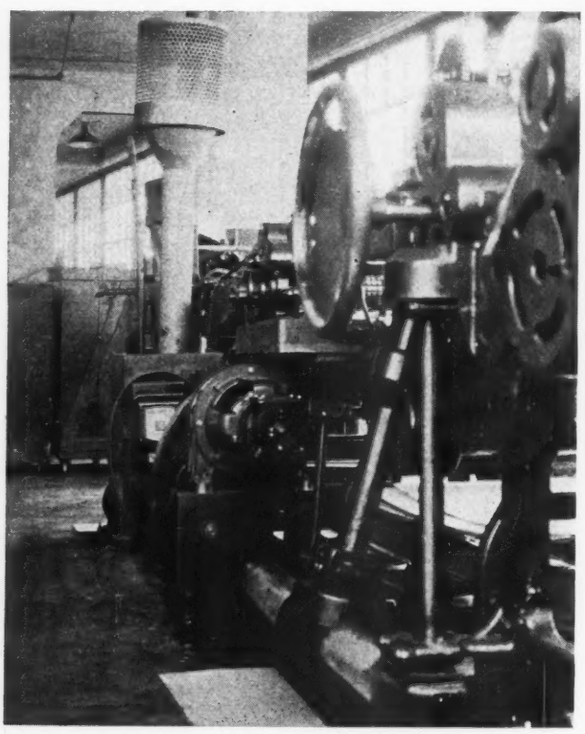
010-6

Individual and Group Drives

Used in Plant of Envelope Maker—Type of Drive Can Be Determined Only After Study of Type of Service Required

By FRANCIS A. WESTBROOK*

THE plant of Berlin & Jones Co., Inc., New York, N. Y., makers of envelopes, furnishes an example of group and individual motor drive. The machinery is not heavy and there are some sixty motors in all arranged according to the two methods. The reasons why the two kinds of drives have been employed are interesting as well as illuminating.



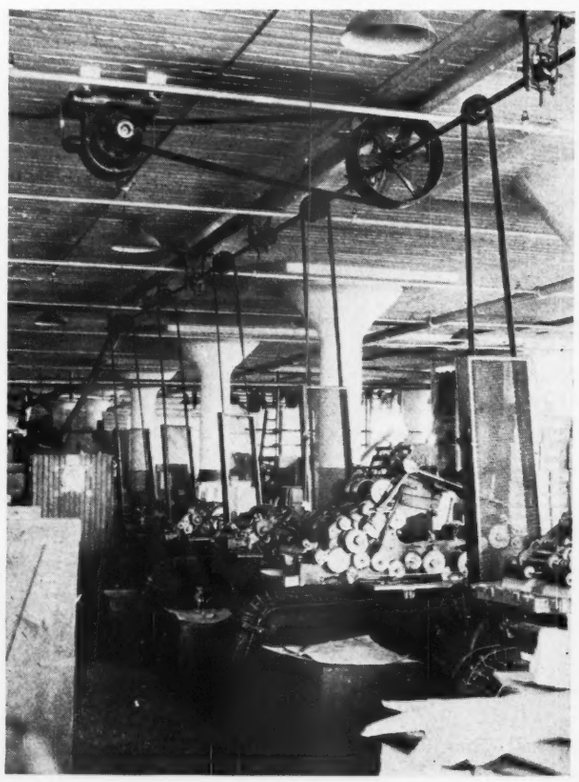
Example of Individual Press Drive in Plant of Berlin & Jones, Inc., New York, New York

There are five group drives as follows:

Group 1. This consists of four die-cutting machines for cutting thick piles of paper into proper shape for folding into envelopes. These die-cutting machines are equipped with flywheels so that when once started they run with a minimum of power. The motor used for driving is a 5 h.p. induction motor, mounted on the ceiling and connected through line shafting. It would take a 3 h.p. motor per machine for individual drive, largely on account of the starting effort called for. The speeds are constant.

Group 2. Six job presses are driven by one 3 h.p. induction motor. These machines run more or less intermittently and there is no call for variable speed control. They would each require a 1 h.p. motor if driven individually.

Group 3. There are seven folding machines of the rotary type of various sizes. Not many of these are run at any one time and there is no need for variable speeds.



Example of Group Drive in Plant of Berlin & Jones, Inc., New York, New York. The motors and shafting hangers in this particular installation are all fitted with ball bearings.

This group is driven by a 5 h.p. induction motor. Some of the machines would require as large as a 2 h.p. motor for individual drive.

Group 4. This group consists of three slow-speed printing presses, requiring no more speed variation than can be provided by cone pulleys. A 5 h.p. induction motor drives these, whereas it would take a 2 h.p. motor for each with individual drive.

Group 5. There is a small machine shop for making repairs in which the machines are driven by a 5 h.p. induction motor.

In general, it may be said that all of these group drive motors are mounted on the ceiling, all are ball-bearing motors and the shafting hangers all have anti-friction bearings. This, of course, reduces the friction load to a minimum and with the motors mounted on

Continued on page 33

*Mechanical Engineer, Center Conway, New Hampshire.

Preparing For Newspaper Career

Writer Advises Young Man About To Prepare Himself To Become A Pressman — Eulogizes Theodore Ellis

By Henry A. Wise Wood*

If I were a young man fitting myself to become a pressman, I would decide before going further whether or not I really wanted to become a pressman. If I found myself more interested in some other kind of work I would not attempt to become a pressman, but would make any necessary sacrifice to do what I liked best.

The man who isn't interested in printing but has more interest in the mechanics of a motor car, for instance, will be surer to make a success of his life if he goes in for motor car work.

It is most important that a young man in starting out should choose work that he enjoys, for which his nature is fitted. If he chooses work that he really doesn't like he can never succeed at it, and his subsequent life is apt to be spent in drudgery. Every successful man is successful because he likes his job. Most failures come from attempting to do something for a living that one doesn't like, and therefore that one cannot do well. The time for a young man to put himself on the right track is before he marries. Afterwards it is more difficult to change employment.

Unless a boy has the "feel" of machinery he had best not attempt to become a pressman. If he has the feel of machinery and likes printing he is starting life aright in becoming a pressman. Then his success will depend upon his character. Given sound character, the feel of machinery, industry, and the ability to learn—that is, the ability to retain what he is taught and to use it—he should succeed. In addition to these characteristics he should be observant, resourceful, tactful, and ambitious. Also, he should develop leadership and acquire the ability to command. He should be capable of assuming responsibility. So equipped, a man can go far in the newspaper world, particularly if the "breaks" are with him. If to these qualities is added imagination there would seem to be no limits to his achievements.

The late Theodore T. Ellis, an old friend of mine, who started as a boy in the navy and landed by accident in a pressroom, had the feel of machinery and liked it. Also, he had the ability to learn, and learned. He was industrious, too, and inquisitive. Also, he had imagination and courage. He learned not only how to run a press but how to do every other job that is necessary in printing a newspaper. And he had sound character, great ambition, and shrewd business ability. He knew the value of a nickel and made all the nickels he earned and saved work for him.

In his early career, Ellis always was thinking, studying, and progressing. He was never idle and always was trying to find better ways of doing his job. He not only was a student of the pressroom but of the newspaper as well. He was a student of men as well as of machines. He trained himself not only in mechanical ways, but in business ways. So he worked himself through the pressroom and up along the lines into the management and finally into the ownership of a newspaper.

This he did by successfully mastering each job and then tackling the next job above until he had mastered that job too. He had discovered, as all men do who go from the bottom to the top, that getting on in life is like climbing a difficult stairway, each step being somewhat different from the one before it. Ellis' character was such that it impelled him to master the step he was on and then to learn how to mount the next one above it, and so on until he found himself at the top. And on the top step was the possession of a newspaper.

Then, not being content with the ownership of a newspaper in a small city, his ambition impelled him to go further and obtain *The Chicago Daily News*, one of the great journals of the country. At the time of his death he was in the position of being the only owner of a large newspaper in the United States who had a practical working knowledge of every mechanical process that enters into newspaper manufacture. To his knowledge the handsome appearance of *The Chicago Daily News* attests. What Mr. Ellis has done, other boys may do, if they possess and will apply to their work and qualities shown by this remarkable man.

The world of tomorrow will be filled as is the world of today, with masters and men. Every young man in starting out should choose to which of these groups he intends to belong. If he takes the easy way now he will land among the men. But if he chooses to be among the masters he may succeed if he will but develop character and subject himself to the necessary discipline and do the necessary work. Always he must remember that in life one gets nothing for nothing.

*President, Wood Newspaper Machinery Corporation, Plainfield, N. J., in the Central *Review*, New York School of Printing.

Patents For The Month

Many Claims Allowed For Presses—Rotatable Cutter For Refinishing Rubber Rollers Granted E. L. Cecil

MARCH-APRIL

Printed Copies of Patents Are Furnished by the Patent Office at 10 Cents Each. These May Be Obtained by Addressing the Commissioner of Patents, at Washington, D. C.

1,949,420. METHOD OF APPLYING AN ADHESIVE SURFACE TO A WEB. John A. Johnson, Woodhaven, N. Y. Original application August 29, 1929, Serial No. 389,120. Divided and this application July 19, 1932, Serial No. 623,344. 5 Claims. (Cl. 154 — 40.)

1. The method of applying an adhesive to a web consisting in providing a web of non-adhesive material to which the adhesive surface is to be applied and a web of adhesive material normally non-viscous under ordinary temperature and adapted to be rendered viscous by an elevated temperature, and uniting the webs by heating the web of non-adhesive material and juxtaposing the adhesive web under pressure to a surface of the heated web.

1,948,839. METHOD OF AND MECHANISM FOR FEEDING FOLDED SHEETS TO SHEET-OPENING DEVICES IN A SHEET-HANDLING MACHINE. Oscar Kleinschmit and Rudolf Klemm, Leipzig-Plagwitz, Germany, assignors to Gebruder Brehmer, Leipzig-Plagwitz, Germany, a limited partnership of Germany. Application January 21, 1932, Serial No. 588,002. In Germany February 9, 1931. 17 Claims. (Cl. 271 — 74.)

1. Mechanism for opening folded sheets, comprising inversely rotating sheet opening members, sheet conveying tapes and means associated with the tapes for presenting to the rotating sheet opening members a folded sheet with its edges oblique to the axis of rotation of the sheet opening members.

1,949,937. INKING MECHANISM. William M. Kelly, Westfield, N. J. Application December 5, 1930, Serial No. 500,372. 4 Claims. (Cl. 101 — 358.)

1. In a printing press which includes an impression cylinder, a supporting frame comprising housings for the ends of the cylinder, a reciprocating bed, primary inking mechanism disposed at one side of the impression cylinder, a rack carried by the bed, a gear rotatably mounted upon the frame and adapted to mesh with the rack, and a train of intermediate gears driven by the gear and adapted to drive the primary inking mechanism, in combination, a secondary inking mechanism comprising an auxiliary vibrator roll and an auxiliary form roll disposed at the other side of the cylinder, a gear supporting bearing plate secured to the inside of one of the impression cylinder end housings, a second train of gears mounted upon the plate, being driven by the rack and adapted to drive the auxiliary vibrator roll.

1,949,944. FEED GUIDE FOR PLATEN PRESSES. George G. Schierholz, El Cajon, Calif. Application June 22, 1932, Serial No. 618,743. 12 Claims. (Cl. 101 — 415.)

1. In a printing press, a draw sheet having two spaced apart slits substantially in parallelism; a feed guide comprising two clamping elements one of which is inserted through the slits to overlie the portion of the draw sheet between the slits and the underlie portions of the draw sheet at the outer sides of the slits; the other clamping element overlying the last mentioned portions of the draw sheet; means defining a gaging surface on the guide; and means for securing the elements in clamping engagement with the last mentioned portions of the draw sheet so as to fixedly secure the guide to the draw sheet.

1,950,086. PRINTING PRESS. George E. Lee, Cleveland, Ohio, assignor to Mahoning Savings & Trust Company, Youngstown, Ohio, a corporation of Ohio, trustee. Original application May 2, 1927, Serial No. 188,327. Patent No. 1,812,054, dated June 30, 1931. Divided and this application June 18, 1930, Serial No. 461,459. 24 Claims. (Cl. 101 — 204)

1. In a printing press: a form-inking roller carried by a support, and means for applying ink to the roller also carried by the support, comprising an ink-supply having means movable about an axis extending transversely of the axis of rotation of the form-inking roller.

1,950,206. ATTACHMENT FOR PRINTING PRESSES. Dell Forest Allen, Cleveland, Ohio. Application February 26, 1932. Serial No. 595,278. 4 Claims. (Cl. 271 — 61.)

2. An attachment for the feeding table of a printing press, adapted for the feeding of cards or the like, comprising an auxiliary table adjustably mounted on the ordinary feeding table, the auxiliary table having upright guides between which the stack of cards is held, the respective tables having slots, the slot in one table crossing the slot in the other, and a clamping device engaged in the slots to hold the auxiliary table at adjustment.

3. An attachment for the receiving guide of a printing press, comprising a single sheet of metal bent to form a middle angular part and two opposite side parts, the ends of the latter being bent back to form clips engaging the ends of the guide.

1,950,538. DEVICE FOR HANDLING ROLLS OF PAPER. David G. Bernard, Chicago, Ill., assignor, by mesne assignments, to Franklin W. Kohler, Chicago, Ill. Application June 29, 1931, Serial No. 547,568. 4 Claims. (Cl. 242 — 68.)

1. A device for handling rolls of paper comprising opposed parts between which the roll is rotatably mounted, a movable support connected with one of the parts and on which one end of the roll is supported, a triple thread on the movable support, a separate engaging-device for each of the threads, and a rotatable part mounted on the movable support and with which the separate engaging devices are connected, a handle connected with the rotatable part for rotating it so as to move the engaging devices through an arc of a circle so as to impart a longitudinal movement to the support to move it into and out of its roll supporting position.

1,950,585. PRINTING MACHINE. Charles B. Wilkes, Jr., St. Louis, Mo. Application May 20, 1929, Serial No. 364,380. 9 Claims. (Cl. 101 — 247.)

7. In a machine comprising a plurality of printing couples each including a platen, mechanism for shifting the platens to printing and non-printing position, means under the control of the feed of the paper to the first couple of the mechanism to maintain the platens in printing position when paper is fed to the machine and to release the platens to non-printing position when paper fails to feed, automatic means for actuating the mechanism to restore the platens to printing position after they have assumed non-printing position, and timing mechanism for controlling the restoring means.

1,950,642. SHEET FEEDING MECHANISM. John Van Buren, Brooklyn, N. Y. Application September 15, 1932, Serial No. 633,235. 7 Claims. (Cl. 271 — 41.)

1. Sheet feeding means comprising a hopper for a supply of sheets, a friction feed roller for engaging the bottom sheet, means for intermittently driving the roller, and means engageable with the next sheet above the bottom sheet, after the feeding of the bottom sheet has been initiated, for holding the second sheet against movement.

1,950,684. PREPARING LITHOGRAPHIC STONES. John G. Mark, New York, N. Y. Application August 20, 1929, Serial No. 387,270. 3 Claims. (Cl. 41 — 41.5.)

1. A process of preparing a lithographic stone for printing simultaneously solid engraved matter and overlying fine hairline tint lines, the process comprising applying to the engraved surface of an ordinary lithographic stone, a ground coating capable of retaining without healing a multiplicity of fine linear punctures, then piercing the ground coating so as to produce therein a multiplicity of fine lines, the piercing being done to but not into the engraved surface of the stone, then counter-etching the portions of the engraved surface of the stone exposed by lines, and removing the ground coating.

1,950,880. HIGH SPEED SHEET DELIVERY DEVICE. Donald M. Duncan, Parma, Ohio, assignor to The Cleveland Shopping News, Cleveland, Ohio, a corporation of Ohio. Application April 3, 1933, Serial No. 664,085. 16 Claims. (Cl. 271 — 64.)

1. In a mechanism, web-forwarding means, means for cutting the web into sheets, a transfer roll having sheet-catching means in association with the web-cutting means for catching each cut-off sheet, serially-arranged off-bearing guides, and means for releasing the sheets into each guide in turn.

1,950,975. OPACIMETER AND METHOD OF MEASURING OPACITY. Myrl N. Davis, Appleton, Wis., assignor to Paper Patents Company, Neenah, Wis., a corporation of Wisconsin. Application November 19, 1932, Serial No. 643,505. 10 Claims. (Cl. 88—14.)

1. A method of determining contrast ratio of opacity, comprising projecting a beam of light upon the surface of a sheet whose opacity is to be measured, in such a manner that light will be reflected from the surface upon a normally unilluminated diffusely reflecting surface, and, under like electrical conditions, electrically measuring the brightness of the light reflected from the last-mentioned surface when the sheet is backed by a white object and by a black object, respectively, to obtain the ratio of the intensities.

1,951,329. DISTRIBUTOR BAR FOR TYPOGRAPHICAL MACHINES. Herman R. Freund, Brooklyn, N. Y., assignor to Intertype Corporation, Brooklyn, N. Y., a corporation of New York. Application May 24, 1933, Serial No. 672,690. In Germany June 1, 1932. 7 Claims. (Cl. 199 — 33.)

1. A distributor bar for matrix composing and line casting machines having parallel longitudinal ribs to carry correspondingly toothed matrices and certain of which ribs are interrupted at the matrix dropping points, all of the ribs being continued between the matrix dropping points to provide a carrying surface for all the teeth present on any matrix.

1,951,433. SAFETY ATTACHMENT FOR PRINTING PRESSES. Harry E. Millingar and Turner T. Pope, Houston, Tex., assignors of one-third to F. G. Dorsey, Houston, Tex. Application April 13, 1931, Serial No. 529,745. 8 Claims. (Cl. 164 — 49.)

8. In a paper delivering device including rotatable cylinders between which the paper passes, the combination of a support adjacent the paper, knives on the support, means to move the knives outwardly to cut the paper, and electrically operated means controlling the operation of the means, the electrically operated means including a solenoid, a switch adjacent the cylinders, an electric circuit including the switch and solenoid, the switch being responsive to increases of thickness of paper on either of the cylinders.

1,951,590. FOLDER PROTECTING DEVICE. Henry A. Wise Wood, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a corporation of Virginia. Application May 1, 1929, Serial No. 359,566. 10 Claims. (Cl. 192 — 127.)

1. In a folding machine, the combination with folding and cutting cylinders, of an emergency member mounted adjacent to the cylinders, the member being movable and having an electric contact adapted to be closed by its movement due to an accumulation of paper on either of the cylinders and a stop circuit in which the contact is located, arranged to stop the folding machine upon movement of the lever.

1,951,900. BED AND CYLINDER PRINTING PRESS. Calvert B. Cottrell, 3d, Westerly, R. I., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a corporation of Delaware. Application April 28, 1931, Serial No. 533,426. 21 Claims. (Cl. 101 — 357.)

1. In a bed and cylinder printing press, a reciprocating form bed, a drive therefore, an inking mechanism for the bed including distributing and form rollers, and a drive independent of the bed drive for driving the distributing and form rollers continuously in one direction only, while the press is printing.

1,951,901. SHEET REGISTERING DEVICE. Calvert B. Cottrell, 3d., Westerly, R. I., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a corporation of Delaware. Application December 17, 1932, Serial No. 647,714. 6 Claims. (Cl. 271 — 58.)

1. A side register for sheets including a normally inoperative device for moving the sheet laterally into side register, a circuit maker and breaker controlled by the sheet in its advance movement, to put the sheet moving device into operation and a photo-electric unit controlled by the sheet in its lateral movement to put the sheet-moving device out of operation as the sheet reaches its side registry point.

1,952,019. TYPE HOLDING DEVICE. Grosvenor D. Marcy, Newton Highlands, Mass. Application June 9, 1932, Serial No. 616,207. 12 Claims. (Cl. 101 — 404.)

1. A type holding device comprising a flexible and resilient rectangular band adapted to be placed over and surround a column of type matter and being free to be distorted but having the capacity of immediately reassuming its initial shape, and a cooperating resilient wedge adapted to fit within the band and by reacting with the band temporarily distort it to hold the type matter compressed tightly together.

1,952,028. ROTARY PRINTING MACHINERY. Charles F. Hehle and Albert Halstead, Jr., Milwaukee, Wis., assignors to Claybourn Process Corporation, Milwaukee, Wis., a corporation of Wisconsin. Application November 21, 1931, Serial No. 576,569. 9 Claims. (Cl. 101 — 178.)

1. In a rotary printing machine, the combination of a main frame, a rotary impression cylinder rotatable in the main frame, an inker stand, inking rollers on the inker stand including form inking rollers, driving means for the impression cylinder and the inking rollers rotating the impression cylinder and the form inking rollers at the same circumferential speeds, form cylinders of various diameters interposed between the form inking rollers and the impression cylinder, means rotating the respective form cylinders of various diameters at the same circumferential speeds, adjusting means adjusting the distance of the inker frame from the main frame, and means fixing the adjusted positions of the inker frame for locating the form inking rollers in contact range with the form cylinders of various diameters.

1,952,032. PRINTING PRESS. Paul Rappeport, Vienna, Austria, assignor to firm "Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft Medling," Medling, Austria. Application November 9, 1932, Serial No. 641,502. In Austria July 15, 1930. 22 Claims. (Cl. 101 — 275.)

1. In a printing press, an impression cylinder, sheet gripping means thereon, an opposed pressure cylinder, a bed frictionally driven by the cylinders during the printing operation, means connected directly to the main drive of the machine for rotating the impression cylinder in one direction during the printing operation only, means for moving the bed to and from printing position, and means for holding the impression cylinder against rotation during the return stroke of the bed.

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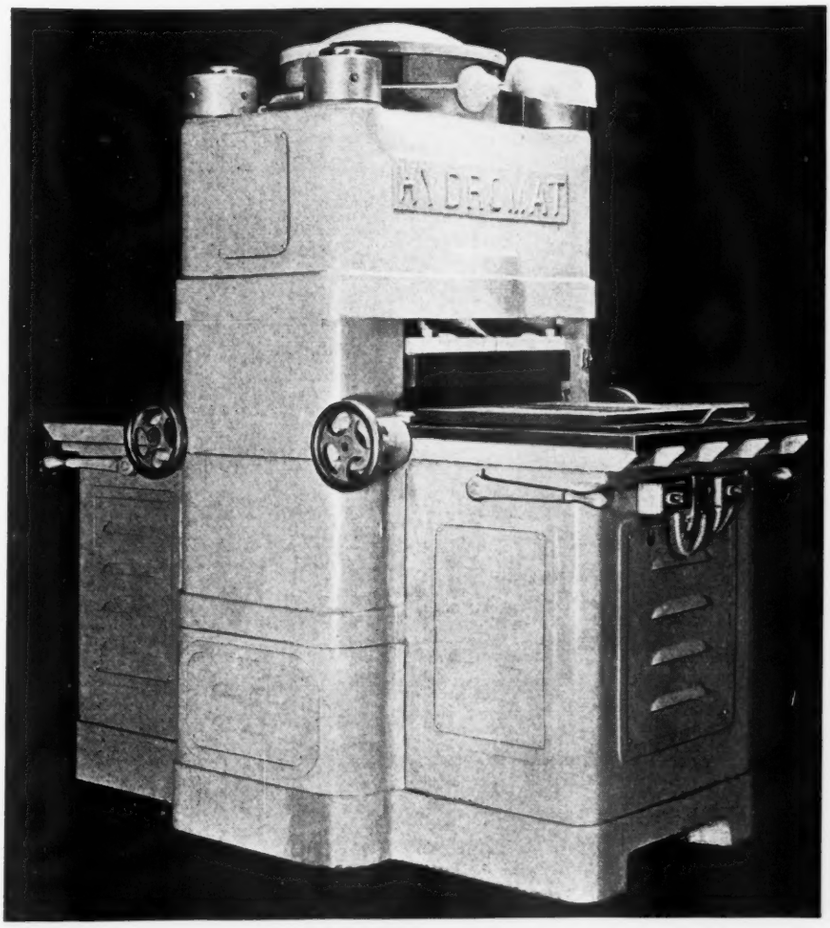

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A-Z ELECTRIC ALLOY

1,952,067. ADJUSTABLE COMPOSITOR'S CHASE. Ben E. Hayes, Jackson, Mich. Application August 10, 1932, Serial No. 628,192. 1 Claim. (Cl. 101 — 392.)

An adjustable compositor's chase having four like, separable and interchangeable side-members, the side-members each having one hook shaped end adapted to be slipped over the tail-end of any one of the other side-members, grooved guideways extending longitudinally the length of the outward sides of the several side-members adapted to slidably receive the noses of the hooked ends of the respective side-members, the side-members being adapted to slide forward and backward upon each other and means of locking each of the respective side-members at any desired place along its corresponding member, whereby the side-members may be held in adjusted position, and having inscribed on the upward sides of the respective side members printers' line gages, substantially as set forth.

1,952,073. CUTTING MACHINE. Thomas R. Jones, Cleveland, Ohio, assignor to Harris-Seybold-Potter Company, Cleveland, Ohio, a corporation of Delaware. Application April 13, 1932, Serial No. 604,897. 18 Claims. (Cl. 164 — 48.)

1. A cutter having a table for supporting a stack of sheets to be cut, a movable cutting knife for cutting the sheets, the cutting knife being guided to cut along a cutting line whose exact position cannot be readily determined by an operator from his normal position in control of the machine, means under the control of an operator for moving the stack of sheets toward cutting position relative to the cutting line, means making the sheets to be cut and their position relative to the cutting line readily and accurately visible to the operator from his normal position in control of the machine whereby he may register the sheets with the cutting line by observation of the relative position as the sheets are moved to cutting position, clamping means for holding the stacks of sheets in cutting position after they have been positioned, and meand for operating the cutting knife.

1,952,291. SAFETY CONTROL FOR CUTTING MACHINES. Frederick W. Seybold, Dayton, Ohio, assignor to Harris-Seybold-Potter Company, Cleveland, Ohio, a corporation of Delaware. Application February 15, 1932, Serial No. 592,921. 15 Claims. (Cl. 192 — 131.)

1. In a cutting machine, power driven mechanism for causing the cutting knife to descend from its position of rest to make the cut and then rise again to its position of rest, a hand control member for setting the mechanism into operation, a separate control member for actuation by the other hand of the operator, means for interrupting the action of the knife mechanism promptly upon the removal of either of the operator's hands from the control members during the descent of the knife, and means for interrupting the action of the knife mechanism when the knife upon its ascending movement arrives again at the position of rest.

1,952,655. POLISHING DEVICE FOR PRINTING PRESS ROLLERS. Eugene L. Cecil, Washington, D. C., assignor of one-half to L. D. Wright, Washington, D. C. Application October 9, 1930, Serial No. 487,471. 17 Claims. (Cl. 51 — 67.)

16. A printing press roller polisher comprising a base for rotatably supporting a printing press roller, a grooved track supported by the base, a hopper supported for pivotal movement toward and from the roller by wheels positioned in the groove, the hopper being adapted to deliver a polishing medium to the roller.

1,952,656. ROTATABLE CUTTER. Eugene L. Cecil, Washington, D. C., assignor of one-half to L. D. Wright, Washington, D. C. Application July 21, 1931, Serial No. 552,248. 6 Claims. (Cl. 29 — 104.)

1. A rotatable cutter comprising a plurality of discs having radial teeth arcuately formed at their cutting ends, the arcs being concentric with the axis of rotation of the cutter and the cutting faces of the teeth being radial thereto.

1,952,657. CALIPER. Eugene L. Cecil and John J. Callahan, Washington, D. C. Application December 5, 1931, Serial No. 579,296. 8 Claims. (Cl. 33 — 148.)

8. A caliper comprising a head, a leg integral therewith, a second leg pivoted to the head and spaced from the integral lag, an indicator operating lever provided with a bevelled cam surface at one of its ends for operating an indicator and pivotally related to the integral leg, a spring exerting pressure on the lever at a point intermediate the pivot and the head, and means for limiting the movement of the movable leg.

1,952,787. METHOD OF PRINTING. Charles W. Bennett, Douglaston, N. Y., assignor, by direct and mesne assignments, to Photo-Cast, Inc., Rochester, N. Y., a corporation of New York. Application June 9, 1930, Serial No. 460,102. 14 Claims. (Cl. 95 — 5.6.)

1. The method of producing a printing surface which consists in establishing a positive copy make-up; photographically exposing a bichromated type sensitized surface of a plane support to the make-up; developing the surface to obtain an image of the make-up wherein the characters of the make-up appear as bare portions of the support; applying to the covered portions of the support a material capable of liberating gas together with a vehicle capable of entrapping the gas when liberated; liberating gas from the material, whereby increased relief is obtained; and producing the printing surface from the bare portions of the support

1,952,797. GALLEY MECHANISM FOR TYPOGRAPHICAL LINE CASTING MACHINES. William Fairall Gorse, Altrincham, and Richard Henry Scott, Enfield, England, assignors to Linotype and Machinery Limited, London, England, a limited-liability company. Application May 24, 1933, Serial No. 672,728. In Great Britain May 23, 1932. 9 Claims. (Cl. 199 — 61.)

1. In a galley mechanism for typographical line-casting machines, the combination of a chute through which successively cast slugs are delivered, a slug carrier formed with a plurality of containers each adapted to accommodate one slug and automatic means adapted to move the carrier to bring the containers successively into register with the delivery end of the chute.

1,952,815. MOLD OF TYPOGRAPHICAL LINE CASTING MACHINES. Horatio Walter Meachin, Altrincham, and Richard Henry Scott, Enfield, England, assignors to Linotype and Machinery Limited, London, England. Application May 24, 1933, Serial No. 672,732. In Great Britain May 23, 1932. 6 Claims. (Cl. 199 — 55.)

1. In or for a typographical slug-casting mold having fixed body and cap sections and movable body and cap sections, the latter presenting longitudinally extending casting surfaces in planes different from those of the fixed sections, a liner adapted to be secured between the fixed sections of the mold and having surfaces in different planes extending between and adapted to be engaged by corresponding surfaces of the movable body and cap sections when the latter are in casting position.

1,952,820. COMPOSITE MATRIX FOR SLUG CASTING MACHINES. John W. Quadt, Hollis, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York. Application September 13, 1932, Serial No. 632,898. 22 Claims. (Cl. 199 — 66.)

1. A matrix holder comprising a body formed to be supported in operative relation to the mold of a slug casting machine, the body provided with a chamber open at its front and rear and closed at its four sides and adapted for the reception of removable matrix sections.

1,952,950. SHEET DELIVERY MECHANISM FOR PRINTING MACHINES. Fred Spence, Sale and Robert Snow Bartley, Altrincham, England, assignors to Linotype and Machinery Limited, London, England, a company registered under the Limited-Liability Company Acts. Application March 11, 1933, Serial No. 660,358. In Great Britain March 18, 1932. 6 Claims. (Cl. 271 — 77.)

1. Sheet delivery mechanism for printing machines comprising in combination a set of main delivery tapes, a reciprocating tape carriage adapted to receive sheets from the main tapes, a control roller mounted on a stationary axis located adjacent to the delivery end of the main tapes over which the carriage tapes are guided, a free-wheel device on the control roller whereby the travel of the upper flights of the carriage tapes is arrested during the inward stroke of the carriage, and means adapted to impart a slight outward movement to the upper flights of the carriage tapes during the inward stroke of the carriage.

1,953,049. PILE HANDLING MECHANISM FOR PRINTING MACHINES. Albert J. Horton, White Plains, N. Y., and William K. Eckhard, Dunellen, N. J., assignors to Irving Trust Company, receiver of R. Hoe & Co., Inc. Application June 12, 1932, Serial No. 622,040. 12 Claims. (Cl. 271 — 88.)

3. In a mechanism a cantilever load support adapted to be raised, lowered and counterbalanced by a flexible member, and means for automatically counteracting the stretch of the member, whereby the support is prevented from tilting.

1,953,105. FOUNTAIN DIVIDER FOR PRINTING PRESSES. George H. Flinker, Cincinnati, Ohio. Application July 31, 1933, Serial No. 682,984. 19 Claims. (Cl. 101 — 210.)

1. In a divider for a printing press fountain, an elongated elastic element shaped to make an ink-tight fit with the fountain bottom and the fountain roller and constituting the body of the divider, and a holding structure to bear down against the top of the elastic element and being provided with means for securing the structure to the outer portion of the fountain adapted to prevent slippage of the divider upwardly from or along the fountain bottom away from the roller.

1,953,668. QUOIN FOR LOCKING TYPE. Jesse G. Zim, Medford, Mass., assignor, by direct and mesne assignments, of forty per cent of Martin J. Caulfield and twenty per cent to Thomas A. McDonough, both of Medford, Mass. Application March 16, 1931, Serial No. 523,024. Renewed September 8, 1933. 5 Claims. (Cl. 254 — 42.)

1. A quoin for locking type in a chase or the like comprising a pair of bars disposed with their corresponding outer faces parallel, each of the bars having a corresponding longitudinally extending inclined inner surface, longitudinally spaced members between the bars having inclined surfaces movable a limited amount along the inclined surfaces of the bars, a transversely extending rotatable member positioned between the members and bars, and operative connections between the rotatable member and the first members whereby less than one complete revolution of the rotatable member causes a substantially maximum travel of the first members in opposite directions.

1,953,691. QUOIN. Ephriam J. Scott, Somerville, and Wallace M. Cutler, Gloucester, Mass., assignors, by mesne assignments, of eighty per cent to Jesse G. Zim and Martin J. Caulfield and twenty per cent to Thomas A. McDonough, all of Medford, Mass. Application October 24, 1931, Serial No. 570,864. Renewed September 8, 1933. 2 Claims. (Cl. 254 — 42.)

2. A quoin comprising a casing having two parts movable laterally in one direction, means for preventing displacement of the casing parts laterally in the other two directions, a pair of bars housed within the casing having corresponding outer parallel surfaces and inner inclined surfaces having teeth, each of the bars having a projection extending toward the other bar and adapted to engage the inclined surface thereof, the adjacent side walls on one side of the casing being provided with alined openings, and a pinion adapted to engage the teeth and having an opening of polygonal shape adapted to be engaged by a key inserted through the openings in the casing, one of the openings serving as a bearing preventing lateral movement of the axis of the pinion longitudinally of the quoin.

1,954,270. PRINTER'S FEED GAUGE. Warner A. Smith, Seattle, Wash., assignor of one-half to Percy S. Moore, Seattle, Wash., and one-half to himself. Application November 20, 1931, Serial No. 576,297. 4 Claims. (Cl. 101 — 415.)

3. A printer's feed gauge for securement to an edge of a tympan sheet comprising a lower plate transversely grooved near one end, this end adapted to underlie the tympan sheet, a single bolt projecting upward from the lower plate outwardly of the groove, an upper plate overlying the lower plate and the edge of the tympan sheet, and apertured to fit over and be positioned by the bolt, a transverse rib at its end extending below its lower surface to engage within the groove, a nut received on the bolt to clamp the tympan sheet between the rib and the groove, and a flange upstanding at the opposite end of the lower plate, and constantly engaging the corresponding end of the upper plate to prevent rotation of one relative to the other, and to position the rib of one plate for engagement within the groove of the other, at a predetermined distance from a vertical wall of the groove.

1,954,447. CASTING BOX FOR PRINTING PLATES. Richard J. Greenway, Westerly, R. I., assignor to C. B. Cottrell & Sons Company, Westerly, R. I., a corporation of delaware. Application October 14, 1932, Serial No. 637,687. 4 Claims. (Cl. 22 — 5.)

1. In a casting box, top and bottom platens adapted to receive between them a mat and its bearers, platen closing clamps and their screws, and screws carried by the top platen in position to engage the bottom platen and to be engaged by the clamp screws when the box is closed, for limiting the closing movement of the platens beyond the bearers.

1,954,627. PRINTING INK. Joseph F. Jirousek, Cleveland, Ohio, assignor, by direct and mesne assignments, to Mir-A-Col Incorporated, Cleveland, Ohio, a corporation of Ohio. No Drawing. Application April 18, 1932. Serial No. 606,081. 8 Claims. (Cl. 134 — 36.)

1. A printing ink, comprising ½-¾ part of a wax, 1-6 parts of an inorganic bodying agent, 10-14 parts of a drying oil, 1-5 parts of a resin and low boiling solvent therefor, 6-9 parts of a pigment, ⅛-2 parts of drier, and a solvent including an organic solvent liquid constituent of boiling point above 100°C.

1,954,734. PAPER FEEDING MECHANISM FOR PRINTING MACHINES. Arthur William Harries. Twickenham, England. Application December 2, 1932, Serial No. 645,488. In Great Britain February 1, 1932. 8 Claims. (Cl. 101 — 228.)

1. A printing machine comprising a printing mechanism, a feed roller shaft, a mutilated gear wheel, a second mutilated gear wheel loosely mounted upon the feed roller shaft, driving means between the printing mechanism and the second mutilated gear wheel for rotating the latter in one direction during the non-printing period, the means including a friction clutch, the first mutilated gear wheel being continuously driven by the printing mechanism and adapted during the printing period to mesh with the second mutilated gear wheel to overcome the force of the clutch to rotate the second mutilated gear wheel in a direction opposite to its first mentioned direction of rotation, a ratchet wheel fixed to the feed roller shaft, a pawl movable with the second mutilated gear wheel and adapted during the printing period to cooperate with the teeth of the ratchet wheel and thereby rotate the latter to rotate the feed roller shaft to feed the paper through the machine, and disengaging means for moving the pawl out of engagement with the teeth on the ratchet wheel.

1,954,851. PRINTING MACHINE. John F. Springstead. Mount Vernon, N. Y., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York; Irving Trust Company, receiver. Application October 23, 1931, Serial No. 570,542. 6 Claims. (Cl. 101 — 157.)

1. In a rotary photogravure printing machine, the following elements in combination: a supporting frame, a form cylinder, a main impression cylinder, and an auxiliary impression roller resiliently mounted and adapted to hold a web of paper in contact with an arc of the periphery of the form cylinder beyond the point of engagement of the form cylinder and the main impression cylinder, the auxiliary impression roller being swingable angularly over the periphery of the form cylinder.

1,955,036. MATRIX-SETTING AND TYPE-LINE-CASTING MACHINE. Hermann Wilhelm Eduard Unthoff, Berlin-Charlottenburg, Germany, assignor to the firm Typograph G. m. b. H., Berlin, Germany. Application June 26, 1933. Serial No. 677,744. In Germany July 6, 1932. 11 Claims. (Cl. 199 — 4.)

1. A matrix-setting and type-line-casting machine of the character described including in combination with a matrix collecting station, a ramp rail for effecting the vertical positioning of the matrices with respect to the collecting station, and means for operating the ramp rail including an adjustable cam and a main operating lever, of key operable means independent of the main operating lever for setting the cam.

1,955,618. TYPOGRAPHICAL COMPOSING AND DISTRIBUTING MACHINE. Christian Augustus Albrecht, Berlin, Germany, assignor to Mergenthaler Linotype Company, Brooklyn, N. Y., a company of New York. Application June 24, 1933, Serial No. 677,431. In Germany July 13, 1932. 10 Claims. (Cl. 199 — 39.)

1. In a typographical composing and distributing machine, the combination with a plurality of magazines movable to bring a selected magazine into operative position and a plurality of magazine entrances rotatable to bring a selected entrance into operative position, of means actuated by the movement of the magazines adapted to effect the rotation of the entrances during the movement.

1,955,619. MATRIX-SETTING AND TYPE-LINE-CASTING MACHINE. Wilhelm Blume, Berlin-Tegel, Germany, assignor to the firma Typograph G. m. b. H., Berlin, Germany. Application May 12, 1933, Serial No. 670,790. In Germany May 31, 1932. 6 Claims. (Cl. 199 — 25.)

1. A mechanism for controlling the release of matrix bars in type-line-casting machines including power actuated matrix release devices, spring controlled operating keys, spring controlled members intermediate each of the devices and corresponding keys for normally holding the devices in inactive position but movable on depression of the corresponding key to release the power actuated device, and adjustable mechanism cooperating with the keys for regulating the engagement of the keys with the intermediate members.

"It's What I Call a SWEET TEMPERED MAT"

—explains the stereotyping superintendent to the business manager. "Some mats you have to treat like a balky mule. Give 'em the last ounce of squeeze, scorch 'em till they char.

"But these Certified Mats meet you half way on everything you do—a lot less squeeze, quicker scorching with less heat. That's why we changed over and I want to tell you things are going a lot smoother out in my department. You must have noticed the difference in making press time of big editions."

For dependable stereotyping use Certified Dry Mats, made in the U. S. A.

CERTIFIED DRY MAT CORPORATION
340 MADISON AVENUE • NEW YORK, N. Y.

Certified DRY MATS

WHY
WE STICK TO IMPERIAL

SYSTEMATIC, ACCURATE METAL ANALYSIS

"THERE'S a half a dozen reasons why we 'stick to Imperial' but to my mind the biggest reasons we have for standardizing on Imperial is the fact that we get systematic metal analysis at their laboratory.

"Each month we see to it that a sample of our metal is sent to the Imperial laboratory. In a few days we get their report and suggestions on keeping our metal in perfect condition. This one Imperial service, we believe, has done more than anything else to keep our metal costs down to a minimum. It helps us to avoid machine and metal troubles, and we know from the appearance of our paper that this arrangement works out best for us. We believe that it pays for us to stick to Imperial."

Imperial METAL

THE IMPERIAL TYPE METAL CO.
Philadelphia · New York · Chicago · Los Angeles

Applying Moisture to Paper Web

To New as Well as Old Style Presses Is Provided for by Vapo Systems Equipment — Designed by George C. Flint

By STAFF WRITER

THE application of water vapor to both sides of the running paper web of a rotary printing press previous to passing over the impression cylinders is provided for by means of suitable equipment which has been designed by George C. Flint, formerly a mechanical executive on a Chicago daily newspaper.

Through the use of Vapo Systems it is claimed by Mr. Flint that from 1½ to 2% in newsprint can be saved per year from 8 to 15% less ink will be required per year to obtain a sharper and denser print, web breaks on account of brittle paper will be reduced to the minimum and static will be a thing of the past.

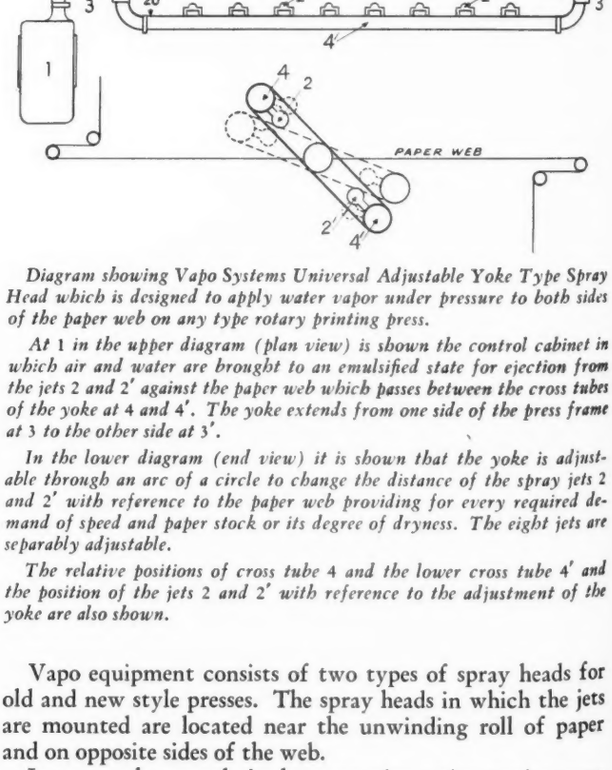


Diagram showing Vapo Systems Universal Adjustable Yoke Type Spray Head which is designed to apply water vapor under pressure to both sides of the paper web on any type rotary printing press.

At 1 in the upper diagram (plan view) is shown the control cabinet in which air and water are brought to an emulsified state for ejection from the jets 2 and 2' against the paper web which passes between the cross tubes of the yoke at 4 and 4'. The yoke extends from one side of the press frame at 3 to the other side at 3'.

In the lower diagram (end view) it is shown that the yoke is adjustable through an arc of a circle to change the distance of the spray jets 2 and 2' with reference to the paper web providing for every required demand of speed and paper stock or its degree of dryness. The eight jets are separably adjustable.

The relative positions of cross tube 4 and the lower cross tube 4' and the position of the jets 2 and 2' with reference to the adjustment of the yoke are also shown.

Vapo equipment consists of two types of spray heads for old and new style presses. The spray heads in which the jets are mounted are located near the unwinding roll of paper and on opposite sides of the web.

In one style several single spray pipe units service some older type presses such as the decker and all floor or end roll-fed styles.

In the adaption of the single spray pipe Vapo unit to the close confined spaces prevalent in end or floor-fed presses, it is necessary to fix the spray pipes immovably to the press frame. There is no variance in the efficiency of the single-pipe unit compared to the yoke type, its design being changed only to meet certain conditions.

The yoke type has been developed to service the reel-fed type of press units from below where the subframes of the press afford more space to make installations.

The yoke type has advantages over the single-pipe design such as adjustable distances for the high duty jets from or towards the paper surfaces. This makes possible either injecting moisture consisting of very fine water particles into the running webs at close range or a coarser spray from a distance, according to the actual conditions and kind of paper used.

Vapo units are not just air and water mixers as is sometimes understood. Ordinarily to break up solid water into particles fine enough not to stain the paper, air pressures from seventy-five to one hundred pounds are required. The mechanism contained in the master control cabinets provides means for obtaining the finest spray or vapor ejection with air pressures ranging from five to 20 pounds maximum.

All jets are constructed and mounted so as to make it possible to apply the vapor either with the running of the web or directly against the direction of the run. This means a great deal to good printing as it is a known fact that paper dust is one of the greatest obstacles to good printing to be met with around a press.

It is possible for a much lighter grade of paper to be used with greater success than can be obtained from heavier grades without the aid of Vapo equipment. The specifications at the mill can be so controlled that mill moisture introduction can be reduced appreciably to provide for a reduction in the cost of paper at the mill. The necessary moisture for good press operation can be easily and economically introduced at the presses at the time of its use.

A metropolitan daily will consume millions of pounds of paper during the year and it is claimed a reduction of from 1½ to 2% can be saved on the price of that paper by specifying that much less moisture at the mills at the time of manufacture. From 8 to 15% less ink will be used to obtain sharper and blacker print; web breaks will be reduced to a minimum; press blankets are given a longer life and an appreciable saving is made on the power consumption of the press units. Static is a thing of the past.

Direct-to-the-web vapor introduction provides a means for avoiding paper dust and the ability to use the light grades of paper. The vapor can be applied under variable conditions, ranging from light to any degree of volume subject to the requirements of the particular paper in use.

Intertype Now Cutting Large Type Faces

To meet the requirements of the users of the new composing stick attachment, just announced by Intertype, that company is now extending all of its most popular faces up to the 60-pt. size as well as several new faces in the larger sizes.

The first of these large faces, it is announced, will be Cairo Open, a three-dimension face based in its design on their present Cairo series.

The further expansion of their Korinna type face series is announced by Intertype. As will be seen in the exhibit shown below, Korinna is a sans-serif face which is different from any of the several kinds now in use.

This paragraph is set in
10 Pt. Korinna with Bold

Korinna is duplexed with Korinna Bold and will soon be completed in seven sizes, 6 to 18 point.

Stereotypers and Advertisements

THIS advertisement deals with only one subject—and it is a subject which we in the stereotype rooms do not always think about.

The subject is the advertisements which appear in your paper.

These advertisements are paid for on a lineage basis—at so much per line. When an advertisement shrinks two lines your paper loses two lines of revenue.

Burgess Chrome Mats come closer to solving this problem than any mat you have ever used.

They shrink uniformly. They show less lengthwise shrinkage in relation to crosswise shrinkage. And hence they save many, many lines of advertising revenue which your paper is not getting.

At the same time Burgess Chrome Mats produce better plates and better printing—something which never made an advertiser in any paper unhappy.

So call in a Burgess Man today. Ask him to demonstrate Burgess Chrome Mats in your own stereotype room. And ask him about any problems you may have. He has been trained to help stereotypers cut costs and improve printing. That's his job.

BURGESS CELLULOSE COMPANY
FREEPORT, ILLINOIS

CHROME MATS
A Laboratory Product
A 174

Pacific Coast Representative, RALPH LEBER,
426 Palson Bldg., Seattle, Washington

Free-Cutting Qualities of Phosphor Bronze

Lead makes Phosphor Bronze free cutting when it is present in the amount of over ½%, according to a statement made in an illustrated booklet published by the Riverside Metal Co., Riverside, N. J. Free-cutting alloys contain from

Microstructure of Free-Cutting Phosphor Bronze. Black Dots Are Free Lead. Mag. 150X. Etch—NH_4OH-H_2O_2

1 to 2% of lead, depending on the use for which they are intended. Lead does not alloy with Phosphor Bronze, but exists as minute particles of free lead, distributed throughout the alloy. In machining leaded Phosphor Bronze, the cutting tool penetrates the tough Phosphor Bronze but soon comes in contact with a particle of free lead which breaks up the Phosphor Bronze chip and acts as a lubricant to the tool, keeping it free and cool, due to its anti-frictional properties.

New Script by Ludlow

Mandate is the name of a new advertising script announced by the Ludlow Typograph Company in 36, 48 and 72 point, the 48 point size being shown here.

This original script was developed to provide a note of informality in severe modern layouts. It is a handwritten design of the rough-and-ready sort, unstudied and splashy.

New Script

Mandate presents one entirely new feature in slug-cast composition, in that the majority of the letters joint without a break, the line simulating the movement of a crayon or pen being thus continuous. Mandate will be of special interest to department store advertisers, who have been using a great deal of hand lettering of this general character.

Promotions in Cline Organization

Harvey Brundage of the Cline Electric & Manufacturing Co., has succeeded Chas. A. Dresser, deceased, as manager of the Cline Company's New York territory with headquarters in New York.

Mechanical executives will also be interested to know that John Park has been elected a vice president of the Cline Electric & Manufacturing Co.

FORM-O-SCORCH has:

outside removable heating units

——selective heat control——

self-conforming curtain cover—

——adjustable forming tension

automatic timing device——

•

If you want a reasonably-priced scorcher with a low operating cost that will turn out first-class work—write for details on the Form-O-Scorch machine.

AMERICAN PUBLISHERS SUPPLY

P. O. BOX 131 • WEST LYNN, MASS.

. . Drives

(Continued from page 24)

the ceiling the amount of belting and space involved is reduced to a minimum. There is not enough belting to interfere with the lighting in this plant.

Individual drive is used for the fast machinery which is run at different speeds for different jobs. That is because there is a maximum efficient speed which varies for different classes. This is especially true of certain kinds of folding machines and the fast printing presses. Several of these motors are provided with ball-bearing gear speed reduces because of the slow speed of the machines compared to that of the motor driving them. In addition to this, there are several special-purpose machines such as the line-casting machines, slug-cutting saws, small blowers for blowing warm air over the folding machines to dry the gum on the envelopes and various other machines which do not fit into any group readily. All are ball-bearing type motors. Many of these machines are supplied with individual motors by manufacturers and the first cost of the machines so equipped is not materially affected in that way.

As was pointed out by John Lodge of Berlin & Jones and Mr. Tankard of MacNutt, Watts & Tankard who made the new electrical installation, the question of group drive and individual drive can only be properly determined by considering the particular requirements of the service which is to be rendered, that is, in some cases group drive is the most economical and in others individual drive is preferable, even in the same plant. The only way to determine what to do is to study carefully the different machines and the service required of each in a particular plant.

Each motor has its own circuit from the large central distribution panel so that trouble at any one point will not be transmitted to any other machine. Each motor has a thermal overload protective starting and stopping switch which, it is claimed, eliminates the necessity of fuses at the motors.

Amthor Has Moved

The Amthor Testing Instrument Co., manufacturers of speed recorders and testing instruments for paper, cordage and light metals, has moved from 309 Johnson St. to 4-10 Leo Place, Brooklyn. The new plant combines office, showroom and factory on one entire floor and provides more complete facilities for handling increasing business.

Faber Now with Typsetters, Inc.

Geo. A. Faber, recently superintendent of the Wisconsin Cuneo Press, Inc., Milwaukee, has associated with Typesetters, Inc., 538 South Wells St., Chicago, in the capacity of superintendent. Mr. Faber is a prominent Craftsman and a past international president.

EDES PHOTO-ENGRAVING

EDES SUPERFINE QUALITY ZINC

ZINC

THE STANDARD FOR MORE THAN 80 YEARS

THE EDES MANUFACTURING CO., PLYMOUTH, MASS.

HOLDS THE FINE LINES

Sales Representatives

John H. Heimbuecher Metals Co., 514 No. Third St., St. Louis, Mo.
Gazzolo Drug & Chemical Co., 119 So. Green St., Chicago, Ill.
E. H. Walker Supply Co., Printcraft Bldg., Washington, D. C.
R. Mohr & Sons, 883 Mission St., San Francisco, Cal.
Thompson-Hayward Chemical Co., 2228 Blake St., Denver, Colo.
Thompson-Hayward Chemical Co., 909-2nd St. So., Minneapolis, Minn.
Metzger Photo Supply Co., 1091 So. Main St., Akron, Ohio
G. C. Dom Supply Co., 125 East Pearl St., Cincinnati, Ohio

40 GOOD PROOFS PER MINUTE

This NEW, compact, high-speed proof press, takes sheets up to 10″ x 30″. Special Vandercook impression cylinder and rubber rollers insure good proofs from forms and galleys that vary as much as .015″ in height.

No. 22 Vandercook Electric **PROOF PRESS**

No. 22 will accelerate production in the composing room of the newspaper or large printing plant. It is a *Necessity* where speed is a factor.

Write today for complete details of construction.

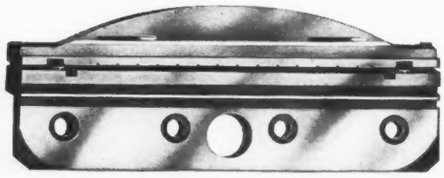
VANDERCOOK & SONS, Inc.

Originators of the Modern Proof Press

908 North Kilpatrick Avenue Chicago, Illinois

We Cannot Turn Lead Into Gold

BUT



We can take your old, worn Linotype or Intertype Molds, that are giving trouble — and rebuild them so that they will have all the attributes of new ones.

All important original measurements restored — all warping eliminated. New wide posts; body and cap completely reground and the latter regrooved.

If past experience has not already acquainted you with our work, the transformation will amaze you! And the cost is but a fraction of a new mold.

Among other parts that we rehabilitate are Back Jaws — First Elevator Jaws — Assembling Elevators — Distributor Bars — Channel Rails.

DISTRIBUTORS FOR

Ace Cord-Rubber **Guaranteed** Belts, Matrix Delivery, Distributor, Assembler, Intermediate Drive, etc.

LINOTYPE PARTS CORPORATION

NEW YORK
203 Lafayette Street

KANSAS CITY
314 West 10th Street

Agencies:

CHICAGO
314 West Randolph Street

LOS ANGELES
1520 Georgia Street

. . New Products

(Continued from page 16)

For Use in the Printing Plant

It is claimed that a unique type of fire extinguisher manufactured by the Wil-X Manufacturing Corporation, in the plant of the Mergenthaler Linotype Co., 29 Ryerson Street, Brooklyn, N. Y., overcomes the disadvantages of old-style, hand-operated extinguishers.

Wil-X Extinguisher

The new "machine-gun" extinguisher, inventer by Peter L. Wilbur, creator of the Pyrene model, has the pump on the outside of the cylindrical container where it cannot gum up, jam, or corrode. The pump never comes in contact with the liquid, only compressing air which forces the liquid out under high pressure. After lifting the pump, the extinguisher ejects a steady stream of Wil-X Liquid directly at the base of the flames.

This extinguisher is easy to aim, and operates with machine-gun accuracy. Its liquid will not leak or evaporate, for it is hermetically sealed when not in use. The Wil-X Liquid is an absolute non-conductor of electricity, and will also withstand a temperature of 52 deg. below freezing.

The pump and nozzle fold down alongside the extinguisher when not in use. In action the pump is raised to open the positive sealing valves. The valves close automatically when the pump is lowered, shutting off the stream and saving the remaining liquid.

Directomat Hydraulic Matrix Press

A new hydraulic matrix press called the Directomat is being made by the Lake Erie Engineering Corporation and is sold by the Lake Erie Stereotype Equipment Co., Kenmore Station, Buffalo, New York. When cold-moulding conditioned dry mats it is claimed the actual moulding operation requires 7 sec. When hot-moulding specially conditioned dry or wet mats, from 3 to 6 min. are required to mould and dry a matrix in one operation. For multi-color work, from 10 to 20 min. are required.

It is claimed that certain defects in the construction of early American-made direct pressure machines have been overcome, such as inadequate construction, pressure control and speed of operation.

Parallelism is insured by an exceptionally large ram with long bearings, besides two long bearing surfaces on each corner of the steel frame which give accurate and rigid guidance to the moving platen no matter whether cuts in the form are mounted type-high or over or whether the form is placed centrally under the platen.

The pressure for each individual form may be accurately pre-determined by means of a hand-wheel and scale, irrespective of moulding cushion thickness. After the desired pressure has been reached it is reduced automatically the correct amount for drying the mat. In other words, the mould is taken at high pressure while the type is cold and the mat is dried at low pressure while the type is hot.

Several features of this press consist of a suction device, form-sliding device, automatic timer, chevron packing, water-cooled work table and steam-heated upper and lower platens.

The upper and lower platens are heated by a steam-electric heating device which conforms to the National Electric Code and the A. S. M. E. Boiler Construction Code. The steam is generated by electric heating elements with automatic heat control. Both upper and lower platens are heat-insulated to conserve electricity and loss of heat by radiation.

A suction device consisting of a motor-driven vacuum pump connected with a removable vapor exhaust plate on the lower side of the press head exhausts the steam from the matrix to shorten the matrix drying period.

The automatic timer is automatically started when the moulding operation commences. Resetting is not required unless the time period is to be changed. A bell signals elapsed drying time.

A one-piece steel frame of high tensile strength encloses the cylinder, moving platen and press head to absorb stresses over entire circumference. Each press is tested at over 50% working pressure and is equipped with an adjustable safety device.

The platen size of Directomat IV is 24 in. by 33½ in. Motor capacity is 5 h.p. Pressure capacity is 3000 lbs. per sq. in. Approx. net weight is 12,000 lbs. Overall dimensions: 3 ft. 10 in. by 6 ft. 6 in. by 6 ft. 8 in. high.

Further particulars may be obtained from Lake Erie Stereotype Equipment Co., Kenmore Station, Buffalo, N. Y.

One-Man Photo-Engraving Plant

Considerable interest was created at the A. N. P. A. convention in New York during the week of April 23, in the exhibit of the Polygraphic Company of America, Inc. This company demonstrated equipment for its "One-Man Photo-Engraving Plant."

Through the medium of Contrasto Films it is possible to eliminate the usual wet plate commonly employed in the photo-engraving process. The subject is taken directly on the film. It is then developed, fixed and dried, after which the subject is photographed on an emulsified zinc plate. The balance of the process conforms in general practice to present-day etching.

The manufacturer's literature lists an 11 in. by 14 in. camera complete with stand, an 8 in. by 10 in. halftone screen with screen attachment, barrel anastigmat lens with iris diaphragm and other equipment to complete the making of cuts.

With the Polygraphic One-Man photo-engraving plant 65-line screen halftones of any size up to 8 in. by 10 in. may be made.

At the New York demonstration zinc cuts of average size were made in 45 min. each.

Giegengack New Public Printer

A. E. Giegengack, an executive in printing concerns for a quarter of a century and mechanical superintendent of the *Stars and Stripes* during the war, will succeed Geo. H. Carter as public printer. Mr. Giegengack is a resident of Rockville Center, N. Y.

It is not known just at present what Mr. Carter's plans for the future may be.

FLASH!

New York, April 26.—Keen interest was shown this week by publishers and their mechanical men who visited the "Klean-O-Mat" exhibit during the annual A. N. P. A. convention at the Waldorf-Astoria.

This long-wanted composing room improvement is rapidly gaining in favor and judging from the enthusiasm of those who viewed the exhibit and saw demonstrations, there is no doubt that "Klean-O-Mat" will be adopted by representative and wide-awake newspapers without delay.

Progressive mechanical executives will lose no time investigating this modern method and the manufacturers will gladly supply all information, promptly, upon request.

Clean-O-Mat Div., The Fred Goat Co., Inc.
314 Dean Street • Brooklyn, N. Y.

Too Thick or Too Thin?

And how much? That is the whole story of makeready.

Makeready is dimension. And accurate measurement is the starting off place.

Plates have to be the right height to print. They can be measured and corrected in advance **cheaply** or they can be corrected by makeready on the press **expensively.**

The advance method is by means of a Hacker Plate Gauge.

HACKER MANUFACTURING CO.
320 SOUTH HONORE STREET CHICAGO

100% SATISFACTION
Plus
SAVING IN COST
Equals
A growing list of
REPEAT BUYERS

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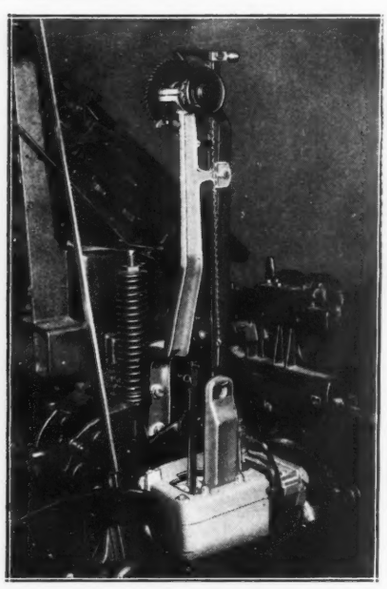
REG. U. S. PAT. OFF.
BOTTOM PRESS BLANKETS

TRY THEM
without risk. Satisfaction guaranteed or Money Refunded.

CORK FIBRE PRODUCTS DIVISION
BEHR-MANNING • TROY, N. Y.
Established 1872



KENDALL
METAL
FEEDER

$35.00
F. O. B. Danville, Ill.
Including two molds
for casting ingots

Hundreds Now in Use • Satisfaction Guaranteed
No Holes to Drill or Tap • Fully Automatic
No Upkeep • Five Minutes to Install
Why Pay More?
Fits Linotype or Intertype Machines
Send order or request for further information to
COFFING HOIST CO., DANVILLE ILLINOIS

. . Color Printing

(Continued from page 11)

Courier-Post, showing the losses which may occur when an original cut is successively restereotyped. This attracted considerable attention as evidenced by the numerous requests for additional copies. Another interesting exhibit has been prepared by Auburn Taylor, Charleston, W. Va., *Gazette*, for distribution at the St. Louis conference. Mr. Taylor has really prepared two exhibits each of which shows conclusively that a trouble in printing halftones which is a serious press-room problem and which is commonly diagnosed as strike through or show through is really caused by offset from the second impression cylinder. Although no cure for this difficulty has been discovered, a discovery of the exact nature of the trouble is a step in advance.

TRADE REPRESENTATIVES

This plan of admitting trade representative to the mechanical conference sessions is being tried experimentally this year with the expectation that it will be advantageous both to the newspapers and the manufacturers. The sole motive prompting the adoption of any new policy has been to increase the value of the Mechanical Department to our member publishers.

MISCELLANEOUS ACTIVITIES

In conclusion, a resume of miscellaneous activities is given as follows:

"The biennial survey of type page sizes and paper roll widths is nearly completed and the report will soon be ready for the printer.

"A survey on body type faces and classified ad faces is now under way and is expected to yield some interesting results. This survey was started because in attempting to answer inquiries from publishers it was discovered that no such statistics are in existence. This report will form an interesting and logical companion to the report on page sizes and paper widths.

"As usual your Manager has endeavored during the year just closed to keep informed concerning new devices and processes pertaining to newspaper printing. There has not, however, been very much to report. The Kemp system of heating type metal by immersion gas burners, which was first installed at the New York *World* in 1930, has been adapted to the use of smaller plants and has been favorably received. Bulletin 83 carries a story on this.* The planographic mercury process mentioned in last year's report is still under observation but reports are to the effect that it is not yet in a commercial stage. The Eastman Kodak Co. developed a process and apparatus of preserving newspapers by use of a photographic film which was reported in B Bulletin 6210. A new keyboard composing machine was reported from New England and a voluminous patent was issued. However, a request by your Manager that he be allowed to inspect the machine brought a reply from the inventor that the machine has not yet been constructed."

*The December, 1930, and the January, 1931, issues of *Printing* EQUIPMENT *Engineer* carried complete stories of the Kemp Immersion Metal-Melting System installed in the plant of the New York *World*. The Kemp Immersion System for use in smaller newspaper plant stereotype departments was also described in the September, 1933, issue.—ED.

Hoch with A. T. F.

Fred W. Hoch, nationally known printing consultant and engineer, author of "Standard Book of Estimating for Printers" (published by United Typothetae of America), contributor of articles on Printing Production, Costs and Economics to leading trade magazines, has joined the American Type Founders Sales Corporation as Educational Sales Director.

Would You Like to Receive Equipment Literature

Readers of *Printing* EQUIPMENT *Engineer* who are interested in securing any of the catalogs, books or bulletins listed below can do so by checking the literature desired. Mark carefully only that literature which you wish to receive. Fill out the coupon and send it to us. The literature will be forwarded without cost except where noted.

Metal Pots—Bulletin containing information thereto as well as information about remelting furnaces and repigging molds.

Now You Can Make Perfect Halftone Negatives or Positives—Folder describing Bassist equipment for introducing halftone screen directly to film.

Rubber Roller Finishing Equipment—Bulletin describing advantages and technical data.

Linecasting Machine Parts Bulletin—Illustrated, describing magazines, molds and liners.

Six Reasons for Using Production English Finish Book—Specimen printings showing effects to be obtained by using this paper as well as Super and Eggshell.

Streamlined Nubian Series—Bulletin demonstrating sizes and uses of new type face, together with showing of suitable ornaments.

A New and Unique Composing System—Strip folder, illustrated, describing display feature of a line-composing machine.

Printing Equipment Engineer,
1370 Ontario St., Cleveland, Ohio.

Gentlemen: Please send the literature checked above without obligation.

Name of Company_____

Attention of_____

Position_____ **Dept.**_____

Street Address_____

City_____ **State**_____

New Train Equipped with Roller Bearings

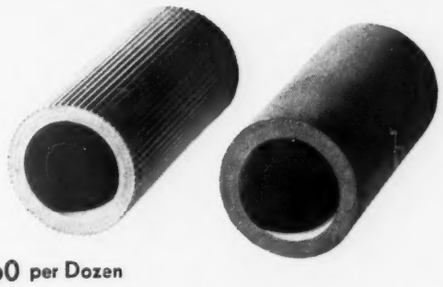
Roller bearings as used in the construction of high-speed printing presses are commanding attention just now among mechanical executives, who will be interested to know that the new streamlined Burlington train is equipped with tapered roller bearings in all axle journal boxes.

It is said that the use of anti-friction bearings throughout this train makes an important contribution to the attainable speed of 110 m.p.h. and the ease of riding, in addition to the lower maintenance and operating cost effected by eliminating friction.

An official of the Timken Roller Bearing Co., Canton, O., said that operation at the high speed of which this train is capable, demands a type of bearing in the wheels, especially in rounding curves, where the ability to carry thrust loads which come from the side is an inherent characteristic. The tapered construction of these bearings enables them to carry all types of loads, both from the side and up-and-down, in any combination.

This new streamlined train will tour the country for a couple of months after which it will be on exhibition at the World's Fair for several weeks before going into regular service on the Burlington railroad.

BOOTH
Rubber Keyboard Rollers



$6.60 per Dozen

Every Composing Room Executive and machinist who has purchased rubber keyboard rollers knows the difficulties encountered in the average rollers: rollers with irregular diameters—too hard a surface—rollers with shiny rings where the cam treads or rollers easily cut by the keyboard cams.

These difficulties have been overcome with Booth "Green" Rubber Keyboard Rollers. Booth Rollers for Linotype and Intertype keyboards—both corrugated and smooth—of constant diameter throughout the entire length. They are permanently resilient for the life of the roller. Rollers you order today will be identical with those ordered a year ago or a year from now. Booth "Green" Rollers insure positive Matrix response in "cold" keyboards.

Write today for a sample roller, or better still send in your order for one dozen at $6.60.

The E. A. Booth Rubber Co.
364 Rockefeller Bldg. Cleveland, Ohio

THE PLANOGRAPH PROCESS

is being installed in a great many printing plants. We make the most modern equipment for planograph plate making.

Write for catalog describing this equipment.

R. R. ROBERTSON
Daily News Building
CHICAGO, ILLINOIS

MANUFACTURERS OF OFFSET AND PHOTO-ENGRAVING EQUIPMENT

MORLEY .better MATS

¶ Takes a deep, sharp mould with minimum pressure .... will not break down your type .... prolongs the life of your moulding blankets.

Your Free Samples Are Ready

Write for 'em—try 'em—see what you're missing without 'em!

MORLEY BUTTON MANUFACTURING CO.

PORTSMOUTH, NEW HAMPSHIRE

***New York Office,* 47 East 11th Street**

. . Press Blankets

(Continued from page 18)

better cushion that way. Rubber may print our letterpress and fine screens better than cork but for the solids and all but highlights in the halftones we must have something that does not give way as readily as rubber. The thin cork blanket follows the ever-working contour of the rubber blanket perfectly and has enough native resistance to give a firm imprint to the solids in passing.

Many pressroom executives feel that a dull-finished top sheet will produce less offset or slurring of the first printing over the second impression than a sheet of high finish. The manufacturers of high-finish blankets and top sheets, however, claim the high finish does not collect the ink, thereby lessening offset. Offset results not from a collection of ink on the second cylinder alone but may also result from the moving about of the first print as it passes over the second cylinders. In the opinion of many pressroom executives, a dull-finished top sheet permits less movement of the sheet and consequently less slurring effect. That offset does not result entirely from ink collection on the second cylinder is proved by the fact that the second impression cylinders in many plants are rarely if ever, wiped off and if ink is collecting to the point of smearing the sheet, it would not be long until the accumulation would stop production entirely. Ink, of course, can and does accumlate on the offset cylinder, but as long as the first printing travels in unison with the second cylinder, the slurring effect will not be pronounced as it does not occur until the sheet moves about over this accumulation.

Great developments can be looked for in the next decade, not only in the method of blanketing presses, but also in the theory of application, because we are moving forward each day in the fascinating art of producing well-printed newspapers in record-breaking time.

HEADQUARTERS FOR MELTING POTS

We produce pots to fit any furnace, repigging molds, stereotype job furnaces, Linotype remelt furnaces. Send us capacity requirements, dimensions and other information and let us quote prices.

The Zellner Foundry Co.

2088 Scranton Road Cleveland, Ohio

General Repairs of Linotype or Intertype Parts

Special Tools and Appliances for Composing Room
Reid Linotype and Intertype Magazine Racks

WILLIAM REID & CO.

537 SO. LA SALLE STREET CHICAGO, ILLINOIS

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Perfected Distribution

NO longer need any pressroom foreman say, "I could save money by running this form on an automatic jobber except it needs more ink distribution than any job press can give it."

For here are the exact words of the foreman of the pressroom in a large, nationally-known printing establishment:

"Our New Craftsman Press has more distribution, in proportion to form area, than any other press we have in our plant."

The Chandler & Price Craftsman Press with Rice Automatic Feeder sets new standards in job press distribution, just as in other important ways. It provides ink supply ample even for the heaviest cuts and solids, and the ink is always under perfect control, all the way from fountain to form.

Perfected Distribution is accompanied by many other features providing better presswork, faster production and lower costs:

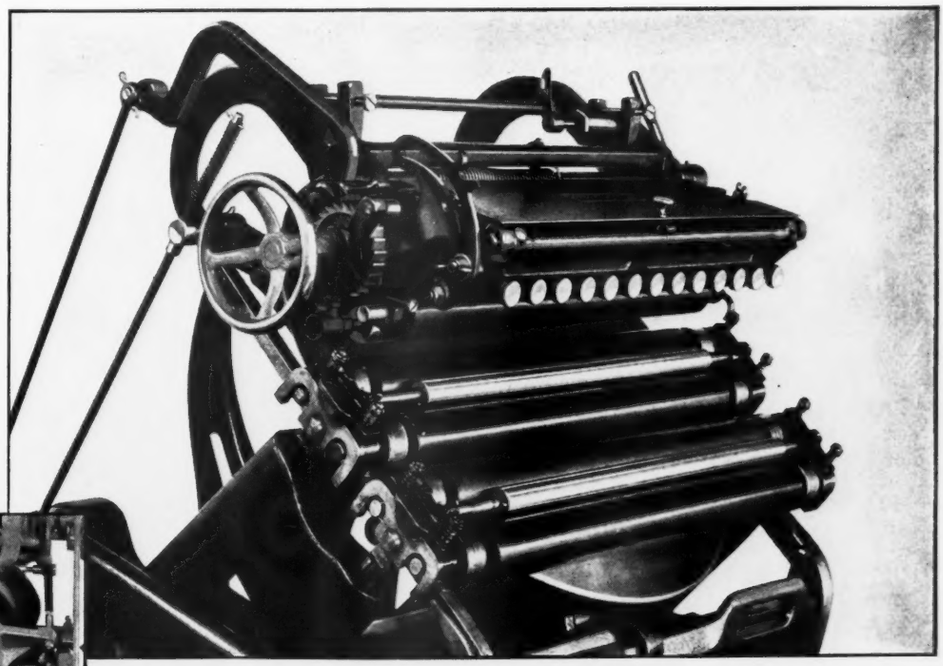
Quick, accurate handwheel impression control; solid impression; hairline register; handles any stock from onion skin to heavy board, any size from a No. 48 card up to press capacity; smooth operation up to 3000 and more impressions per hour; hand feeding entirely practical on short runs.

Ask the nearest C & P branch display room, or your C & P dealer, to arrange for you a working demonstration of the New Craftsman Press. Or write us, without obligation, for complete description, specifications and price on the size in which you are interested.

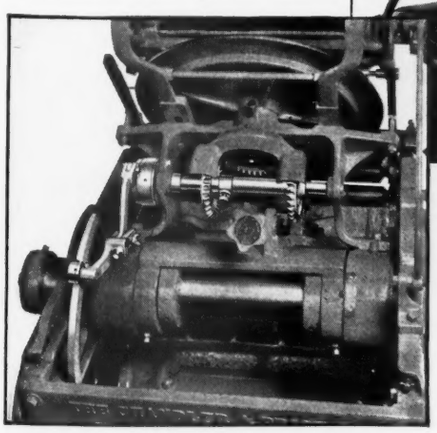
The Chandler & Price Company, Cleveland, Ohio

Branch Offices and Display Rooms:

New York . . Grand Central Palace, 480 Lexington Avenue
Chicago . Transportation Building, 608 South Dearborn Street



● (Below) The positive-moving ink disc has a variable drive, with thumb-screw control providing more or less rotation of the disc as required, to eliminate "ghosts" and fountain streaks. Disc can now be made to revolve either clockwise or counter-clockwise by a second simple adjustment; this valuable new feature permits forms with heavy solids at one side to be locked up either way, for register either right or left.



● The closely-spaced fountain screws are *at the front*, where the pressman can see the results he gets while making his adjustments. Four form rollers, with two vibrators, ride on extension roller tracks at either side of the disc. These tracks are adjustable, enabling the rollers to pick up any desired quantity of ink.

Replaceable roller bed tracks are also adjustable, to permit varying the roller contact on the form to suit each individual job and to compensate for roller age. Roller trip trucks are provided to enable the two lower form rollers to carry their ink supply to the bottom of the form and ink the form *on the way up.*

THE NEW CHANDLER & PRICE CRAFTSMAN PRESS WITH RICE AUTOMATIC FEEDER

• 10 x 15 AND 12 x 18 •

Q. What IS the INTERTYPE UNIVERSAL AUTOSPACER

A. It is a practical device for speeding up machine composition.

Q. What does it do?

A. It sets white space automatically. It eliminates FIVE HAND OPERATIONS on most centered lines and keyboard spacing of all other short lines.

Q. How does this save time and money?

A. Because now a worthwhile part of any kind of composition can be done AUTOMATICALLY. Whether the lines are full or short—whether or not they contain spacebands.

Q. What kinds of composition does the Autospacer affect?

A. Centered lines, Staggered lines and Flush lines—whether they are flush to the right or to the left. Advertising display lines in any size from 5 point to 60 point can be set much faster. Lists of all kinds, programs, stationery forms, booklets and catalogs contain many lines where savings can be accomplished with the Intertype Autospacer.

Q. Does the Autospacer bother the operator?

A. Not at all. The operator has nothing to do but to set a convenient control knob for centering or for quadding to the right or left—as desired. Full lines cast as usual at either setting of the control. Loose lines ring the bell and do not cast—as usual.

The Knob That Does The Job

Get all the facts about the New Intertype Autospacer — a genuine time and money saver for well managed composing rooms.

INTERTYPE

360 Furman Street, BROOKLYN, N. Y.

Chicago, 130 North Franklin Street; New Orleans, 1007 Camp Street, San Francisco; 152 Fremont Street; Los Angeles, 1220 South Maple Avenue; Boston, 80 Federal Street; Canada, Toronto Type Foundry Company, Limited, Toronto
Distributors Throughout the World

Set on the Intertype in Cairo.